致：中华人民共和国商务部

中华人民共和国聚氯乙烯产业反倾销调查申请书附件

（公开文本）

北京市天路律师事务所

二零二零年八月十八日

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附件一

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二、支持企业授权委托书及支持函

一、申请企业授权委托书

授 权 委 托 书

委托方：新疆中泰化学股份有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：新疆中泰化学股份有限公司

授权代表：许多泽

受托方：北京市天路律师事务所

授权代表：

2020年 5月 8日

تىجارەت كەنشىكسى

营业执照

(قوشۇمچە نۇسخا)

(副本) 2-1

بىرلىككە كەلگەن ئىجتىمائىي تەمىنلەش ۋاكالەت نومۇرى

统一社会信用代码 91650000731836311Q

名称 ئاتى	新疆中泰化学股份有限公司
类型 تۈرۈشلۇق قورنى	其他股份有限公司(上市)
住所 قانۇنىي ۋەكىلى	新疆乌鲁木齐经济技术开发区阳澄湖路39号
法定代表人 تىزىملاتقان كاپىتالى	王洪欣
注册资本 قۇرۇلغان ۋاقتى	贰拾壹亿肆仟陆佰肆拾肆万玖仟伍佰玖拾捌元人民币
成立日期 تىجارەت مۇددىتى	2001年12月18日
营业期限 تىجارەت دائىرىسى	2001年12月18日 至 长期
经营范围	食品添加剂氢氧化钠及盐酸、氢氧化钠(烧碱)、液氯、盐酸、次氯酸盐、次氯酸钠的生产、销售，1,1-二氯乙烷、碳化钙、煤焦油、硫磺、硫化钠、硝酸、氨、过氧化氢、硝酸钠、高锰酸钾、醋酸酐、三氯甲烷、乙醚、哌啶、甲苯、丙酮、甲基乙基酮、苯乙烯、乙烯、乙炔、氢、正乙烷、液化石油气、石油原油、汽油、粗苯、甲醇、苯酚、丙烷、氧（压缩的或液化的）、氮（压缩的或液化的）、二氧化碳（压缩的或液化的）、氦（压缩的或液化的）、氖（压缩的或液化的）、异辛烷、石脑油、1,2-二甲苯、1,3-二甲苯、1,4-二甲苯、二异丙胺、乙醇（无水）、乙醇溶液（按体积含乙醇大于24%）、正丁醇、洗油、柴油（闭环闪点≤60℃）、水合肼（含肼≤64%）、甲醛溶液、煤焦沥青、蒽油、三氯乙烯、酚油、漂白粉、氢氧化钾、亚硫酸钠、甲醇钠的销售；　聚氯乙烯树脂、纳米ＰＶＣ、食品容器、包装材料用聚氯乙烯树脂生产销售；塑料制品的生产和销售；化工产品、机电产品、金属材料、建筑材料的销售；仓储服务；金属制品的防腐和低压液化瓶的检验；一般货物与技术的进出口经营；货运代理；煤炭及制品的销售；房屋租赁；软件和信息技术服务；化纤浆粕制造；人造纤维、棉纺纱、化纤布、非织造布的生产与销售；商务信息技术咨询及服务；矿产品、机械设备、五金产品、电子产品、钢材、汽车、汽车配件、食品、烟草制品、酒、农产品、化肥的销售；道路普通货物运输、国际道路普通货物运输；机械设备租赁。(依法须经批准的项目，经相关部门批准后方可开展经营活动)

登记机关 新疆维吾尔自治区工商行政管理局

2017年 06月 14日

gsxt.xjaic.gov.cn كارخانىلارنىڭ تىجارەت ئۇچۇرلىرىنى تاشكابالاش سىستېمىسىدا تور ئادرېسى:
企业信用信息公示系统网址：gsxt.xjaic.gov.cn

جۇڭخۇا خەلق جۇمھۇرىيىتى دۆلەت سودا-سانائەت مەمۇرىي باشقۇرۇش باش ئىدارىسى نازارەت قىلىپ باشقۇرغان
中华人民共和国国家工商行政管理总局监制

授 权 委 托 书

委托方：新疆天业（集团）有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：新疆天业（集团）有限公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 26 日

تىجارەت كىنىشكىسى

营业执照

(副本) 2-1

统一社会信用代码 91659001299898838W

仅供办理 仅供销调查 用
再次复印无效
有效期 2020 4 29 至 2020 7 28

名称 新疆天业（集团）有限公司

类型 有限责任公司(国有独资)

住所 新疆石河子开发区北三东路36号

法定代表人 宋晓玲

注册资本 叁拾贰亿元人民币

成立日期 1996年06月28日

营业期限 1996年06月28日 至 2026年06月27日

经营范围 氯碱生产销售。硫酸、盐酸、氢氧化钠（片碱、粒碱、固碱、液碱）次氯酸钙、次氯酸钠、石灰、高沸物（二氯乙烷）销售。道路普通货物运输。1,4-丁二醇、乙二醇、化学制品、固汞催化剂、水泥及水泥制品、塑料制品、碳酸钙、碳酸钠的生产与销售。钢材、建材、畜产品、机械设备、化工产品的销售。种植业、养殖业，节水农业技术推广，节水农业工程技术研究，进出口业务，国际货运代理业务，物业管理，自建铁路专用线的轨道运输。装卸与搬运，检测设备技术咨询与服务，机器设备租赁服务，模具、零配件加工与制作。广告设计、制作、发布及代理。仓储服务（危险化学品除外）、国内货物运输代理服务，代理报关、报检服务，计算机软件的开发与销售，信息技术服务与咨询，信息系统集成工程，网络综合布线工程，自动化控制系统，工业监控设施的销售、安装和维护，网站设计、制作和维护。农业规划设计、农业技术研发与推广、农作物的种植和销售、农产品的加工和销售。工程设计、施工、承包、技术转让。火力发电；供热；电、蒸汽的销售；电气试验。车辆租赁、餐饮服务。电石、煤及煤制品的销售、矿产品、金属材料的销售。（依法须经批准的项目，经相关部门批准后方可开展经营活动）

登记机关 石河子工商行政管理局

2018年01月15日

授 权 委 托 书

委托方：陕西北元化工集团股份有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020年 5月 8日

统一社会信用代码

91610821748622598U

营业执照

（副 本）(3-2)

扫描二维码登录"国家企业信用信息公示系统"了解更多登记、备案、许可、监管信息

名　　称　陕西北元化工集团股份有限公司

类　　型　其他股份有限公司(非上市)

法定代表人　刘国强

经营范围　聚氯乙烯、烧碱（含片状烧碱）、盐酸、液氯、电石、水泥、硫酸、次氯酸钠溶液（含有效氯>5%）的生产、销售；聚乙烯、聚丙烯、多晶硅、金属镁、硅铁、纯碱、玻璃的销售；电力、热力的生产、供应及销售。（依法须经批准的项目，经相关部门批准后方可开展经营活动）

注册资本　叁拾贰亿伍仟万元人民币

成立日期　2003 年 05 月 06 日

营业期限　长期

住　　所　陕西省榆林市神木市锦界工业园区

复印无效

登记机关

2019 年 04 月 16 日

国家企业信用信息公示系统网址：http://www.gsxt.gov.cn/

市场主体应当于每年 1 月 1 日至 6 月 30 日通过国家信用公示系统报送公示年度报告。

国家市场监督管理总局监制

授 权 委 托 书

委托方：天津大沽化工股份有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：天津大沽化工股份有限公司

授权代表：王昕

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 27 日

统一社会信用代码

91120000103607112F

营业执照

（副 本）

扫描二维码登录“国家企业信用信息公示系统”了解更多登记、备案、许可、监管信息

名　　称　天津大沽化工股份有限公司

类　　型　股份有限公司

法定代表人　张晔辉

经营范围　生产经营环氧丙烷、盐酸、次氯酸钠、过氧化钠、压缩空气、压缩氮气、压缩氧气、氢氧化钠、液氯、氢气、苯乙烯、甲苯；使用电石、丙酮、丙烯腈、2,6-二硝基-4-叔丁基苯酚、对叔丁基邻苯二酚、氢氧化钾、二氯乙烷、氯乙烯、乙烯、环氧乙烷、环氧丙烷、乙炔、丙烯腈、苯乙烯、丙烯、邻苯二甲酸二辛脂、甲醇、液化石油气、乙醇、硝基苯、四氢呋喃、金属钠、丙酮、苯、硫磺、硝酸钠、液氨、高锰酸钾、过氧化氢、高氯酸、氯化钡、三氧化二砷、氰化钾、硝酸汞、醋酸、硫酸、硝酸、氢氧化钾、硫酸汞；化工产品（危险化学品、剧毒品及易制毒品除外）、塑料制品、建筑材料生产和经营；装卸；普通货运；仓储（危险品、煤炭及有污染性货物除外）；化工专用设备制造；钢材销售；设备租赁；自有房屋租赁；进出口业务；无缝气瓶检验、焊接气瓶检验；苯乙烯生产（限分支机构经营）；劳务服务。（依法须经批准的项目，经相关部门批准后方可开展经营活动）

注册资本　壹拾壹亿伍仟柒佰伍拾万零壹佰陆拾柒元人民币

成立日期　二000年十二月二十日

营业期限　2000年12月20日至 2050年12月19日

住　　所　天津市滨海新区塘沽兴化道一号

登记机关　天津市滨海新区市场监督管理局

2020 年01 月20 日

天津大沽化工股份有限公司

宏刘印格

此件仅限 PVC“双反”相关工作 使用

它用无效

2000 年 4 月 20 日

国家企业信用信息公示系统网址：http://www.gsxt.gov.cn

市场主体应当于每年1月1日至6月30日通过国家企业信用信息公示系统报送公示年度报告。

国家市场监督管理总局监制

授 权 委 托 书

委托方：宜宾天原集团股份有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：宜宾天原集团股份有限公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 26 日

营业执照

统一社会信用代码　9151150020885067X6

名　　称　宜宾天原集团股份有限公司

类　　型　其他股份有限公司(上市)

住　　所　四川省宜宾临港经济技术开发区港园路西段61号

法定代表人　罗云

注册资本　柒亿捌仟零捌拾伍万柒仟零壹拾柒元整

成立日期　1994年01月01日

营业期限　1994年01月01日　至　长期

经营范围　基本化学原料、有机合成化学原料、化工产品制造、销售（含危险化工产品生产及本企业生产的危险化工产品销售，其许可范围及有效期以许可证为准）及进出口贸易，塑料制品，压力容器，电气维修，电线电缆，建材，三级土建工程，化工防腐，化工机械制造安装，电气仪表安装施工（由许可证的取得许可的分公司经营）；生产医用氧（有效期限以许可证为准）；香精香料的生产、销售（凭许可证经营）；电力业务（按许可证范围经营，有效期至2029年6月16日止）。（依法须经批准的项目，经相关部门批准后方可开展经营活动）

宜宾天原集团股份有限公司 YIBIN TIANYUAN GROUP CO.,LTD

仅用于办理反倾销调查

与原件核对一致
再次复印无效

请于每年1月1日至6月30日年报
公司出资、股权变更、企业行政许可、
企业行政处罚等信息产生后
应在20个工作日内公示。

登记机关

2018年　9月　1日

二、支持企业授权委托书及支持函

支 持 函

本企业作为国内聚氯乙烯生产企业之一，支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：内蒙古君正化工有限责任公司

代表：

2020 年 4 月 26 日

授 权 委 托 书

委托方：内蒙古君正化工有限责任公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：内蒙古君正化工有限责任公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 27 日

支 持 函

本企业作为国内聚氯乙烯生产企业之一，支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：

代表：

2020 年 4 月 27 日

授 权 委 托 书

委托方：鸿达兴业股份有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：鸿达兴业股份有限公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 26 日

支 持 函

本企业作为国内聚氯乙烯生产企业之一，支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：茌平信发聚氯乙烯有限公司

代表：

2020 年 4 月 27 日

授 权 委 托 书

委托方：茌平信发聚氯乙烯有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：茌平信发聚氯乙烯有限公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 27 日

支 持 函

本企业作为国内聚氯乙烯生产企业之一，支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：内蒙古亿利化学工业有限公司

代表：

2020 年 4 月 27 日

授 权 委 托 书

委托方：内蒙古亿利化学工业有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：内蒙古亿利化学工业有限公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 04 月 26 日

支 持 函

本企业作为国内聚氯乙烯生产企业之一，支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：内蒙古鄂尔多斯电力冶金集团股份有限公司氯碱化工分公司

代表：鲁东卫印

2020年 4月 27日

授 权 委 托 书

委托方 :内蒙古鄂尔多斯电力冶金集团股份有限公司氯碱化工分公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方 :内蒙古鄂尔多斯电力冶金集团股份有限公司氯碱化工分公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020年 4月 27日

支 持 函

本企业作为国内聚氯乙烯生产企业之一，支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：

代表：

2020年 4月 27日

授 权 委 托 书

委托方：中盐吉兰泰氯碱化工有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 27 日

支 持 函

本企业作为国内聚氯乙烯生产企业之一，支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：唐山三友氯碱有限责任公司

代　　表：

2020 年 4 月 27 日

授 权 委 托 书

委托方：唐山三友氯碱有限责任公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：唐山三友氯碱有限责任公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 27 日

支 持 函

本企业作为国内聚氯乙烯生产企业之一，支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：陕西金泰氯碱化工有限公司

代表：王振东

2020年 4月 27日

授 权 委 托 书

委托方：陕西金泰氯碱化工有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：陕西金泰氯碱化工有限公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020年 4月 27日

支 持 函

本企业作为国内聚氯乙烯生产企业之一 ,支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：青岛海湾化学有限公司

代表：

2020 年 4 月 27 日

授 权 委 托 书

委托方：青岛海湾化学有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：青岛海湾化学有限公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 27 日

支 持 函

本企业作为国内聚氯乙烯生产企业之一，支持国内聚氯乙烯产业对进口聚氯乙烯产品提起反倾销调查申请。

特此声明。

企业名称：宁夏金昱元化工集团股份有限公司

代表：尚兴

2020年4月27日

授 权 委 托 书

委托方：宁夏金昱元化工集团股份有限公司

受托方：北京市天路律师事务所

委托方在此委托北京市天路律师事务所作为委托方的代理人，全权代理委托方向中华人民共和国商务部申请对进口自美国的聚氯乙烯产品进行反倾销调查一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

委托方：宁夏金昱元化工集团股份有限公司

授权代表：

受托方：北京市天路律师事务所

授权代表：

2020 年 4 月 28 日

附件二

天路律师事务所代理律师指派书

指派律师：高强、杨鹏

代理律师指派书

北京市天路律师事务所接受申请企业新疆中泰化学股份有限公司、新疆天业（集团）有限公司、陕西北元化工集团有限公司、天津大沽化工股份有限公司、宜宾天原集团股份有限公司及支持企业内蒙古君正化工有限责任公司、鸿达兴业股份有限公司、茌平信发聚氯乙烯有限公司、内蒙古亿利化学工业有限公司、内蒙古鄂尔多斯电力冶金集团股份有限公司氯碱化工分公司、中盐吉兰泰氯碱化工有限公司、唐山三友氯碱有限责任公司、陕西金泰氯碱化工有限公司、青岛海湾化学有限公司、宁夏金昱元化工集团股份有限公司（统称委托方）就对原产于美国的进口聚氯乙烯产品进行反倾销调查申请一案的委托，并指派我所律师高强、杨鹏作为委托方的代理人。

代理权限：全权代理委托方向中华人民共和国商务部申请对原产于美国的进口聚氯乙烯产品进行反倾销调查申请一案的有关事务，包括但不限于向国家主管部门提交申请材料、提出或变更有关的权利主张、向有关单位调查取证、参加听证会等。

委托期限至委托事项经法定程序终止时结束。

北京市天路律师事务所

指派律师：高强 杨鹏

二〇二〇年五月十三日

律师事务所执业许可证

统一社会信用代码： 31110000726373412Y

北京市天路　　律师事务所，符合《律师法》及《律师事务所管理办法》规定的条件，准予设立并执业。

发证机关： 北京市司法局

发证日期： 2016 年 08 月 01 日

No. 70067463

本证为持证人依法获准律师执业的有效证件。持证人执业应当出示本证，请司法机关和有关单位、个人予以协助。

中华人民共和国司法部

中华人民共和国

律师执业证

Lawyer's License
People's Republic of China

中华人民共和国司法部监制

北京天路律师事务所 BEIJING TIAN LU LAW FIRM 11010203800012

执业机构 北京市天路律师事务所

执业证类别 专职律师

执业证号 11101199910835150

法律职业资格或律师资格证号 京司律证字第1620号

发证机关 北京市司法局

发证日期 2017 年05 月09 日

高强 11101199910835150

持证人 高强

性 别 男

身份证号 11010819600910181X

律师年度考核备案

考核年度	二〇一九年度
考核结果	称　职
备案机关	北京市西城区司法局 专用章 律师年度考核备案
备案日期	2019年6月－2020年5月

律师年度考核备案

考核年度	
考核结果	
备案机关	
备案日期	

北京市天路律师事务所 BEIJING TIAN LU LAW FIRM 11010203800012

本证为持证人依法获准律师执业的有效证件。持证人执业应当出示本证，请司法机关和有关单位、个人予以协助。

中华人民共和国司法部

中华人民共和国

律师执业证

Lawyer's License
People's Republic of China

中华人民共和国司法部监制

北京天路律师事务所 TIAN LU LAW FIRM BEIJING 11010203800012

执业机构 北京市天路律师事务所

执业证类别 专职律师

执业证号 11101200810789320

法律职业资格或律师资格证号 20062103824

发证机关 北京市司法局

发证日期 2017 年 05 月 09 日

杨鹏 11101200810789320

持证人 杨鹏

性 别 男

身份证号 372832197809084731

律师年度考核备案

考核年度	二〇一九年度
考核结果	称　职
备案机关	北京市西城区司法局 专用章 律师年度考核备案
备案日期	2019年6月－2020年5月

律师年度考核备案

考核年度	
考核结果	
备案机关	北京市天路律师事务所 TIAN LU LAW FIRM BEIJING 11010203800012
备案日期	

附件三

聚氯乙烯进出口情况的统计资料

（全国海关信息中心提供）

海关进出口产品产销国(地区)统计报表分析

产品编号：39041090 统计年度：2016年01 月 至 2016年12月

产品名称：其他初级形状的聚氯乙烯,未掺其他物质（数量单位：千克 金额单位：美元）

年度：2016				
产销国(地区)	进口数量	进口美元	出口数量	出口美元
阿尔巴尼亚	0	$0	1230	$742
阿尔及利亚	0	$0	500256	$1,142,916
阿富汗	0	$0	3934	$12,982
阿根廷	0	$0	18000	$10,760
阿拉伯联合酋长国	1	$87	9415230	$7,270,024
阿曼	0	$0	4238000	$3,022,240
埃及	0	$0	36250	$34,189
埃塞俄比亚	0	$0	5828000	$4,218,737
安哥拉	0	$0	341975	$275,895
奥地利	0	$0	1600	$2,240
澳大利亚	0	$0	25200	$17,397
巴布亚新几内亚	0	$0	628800	$511,244
巴基斯坦	0	$0	29040458	$22,388,350
巴拉圭	0	$0	7800	$9,360
巴林	0	$0	52500	$89,490
巴拿马	0	$0	23500	$2,895
巴西	0	$0	49	$66
比利时	110000	$155,195	160000	$113,931
波兰	19012	$3,149	62440	$50,540
布隆迪	0	$0	86000	$73,762
朝鲜	0	$0	1167365	$893,382
德国	9919140	$13,997,697	50	$1,635
多哥	0	$0	360500	$273,558
多米尼加共和国	0	$0	22950	$11,475
俄罗斯联邦	5	$78	105550533	$72,345,393
厄瓜多尔	0	$0	55991	$78,240
厄立特里亚	0	$0	314700	$470,093
法国	7292385	$8,332,642	52500	$41,288
菲律宾	0	$0	1933125	$1,543,388
斐济	0	$0	178000	$146,936
冈比亚	0	$0	49500	$33,702
刚果	0	$0	128275	$99,197
哥伦比亚	0	$0	15112	$40,943
哥斯达黎加	0	$0	12350	$17,463
格鲁吉亚	0	$0	111500	$86,535
古巴	0	$0	358000	$666,301
国别（地区）不详	185854	$191,632	0	$0
哈萨克斯坦	0	$0	51135324	$35,980,654
韩国	6813937	$8,794,611	30222653	$23,607,409
荷兰	400	$2,884	1872	$3,744
吉布提	0	$0	5056435	$3,796,174
吉尔吉斯	0	$0	8184617	$5,829,077
几内亚	0	$0	9300	$9,300
加拿大	0	$0	363100	$285,619
加纳	0	$0	2440255	$2,117,605
加蓬	0	$0	140000	$101,500
柬埔寨	0	$0	55180	$40,850
捷克共和国	0	$0	165	$512
津巴布韦	0	$0	309426	$244,546
喀麦隆	0	$0	178000	$160,388

卡塔尔	0	$0	45000	$53,391
科特迪瓦共和国	0	$0	74750	$58,390
科威特	0	$0	528000	$439,408
肯尼亚	0	$0	34216685	$25,537,160
老挝	0	$0	5600	$1,593
黎巴嫩	0	$0	1000	$1,080
立陶宛	875	$1,627	0	$0
利比亚	0	$0	34000	$22,610
留尼汪	0	$0	401500	$295,456
马达加斯加	0	$0	520512	$413,585
马拉维	0	$0	280070	$302,302
马来西亚	1147280	$1,911,668	146938467	$108,676,634
毛里求斯	0	$0	1275575	$971,066
毛里塔尼亚	0	$0	102000	$76,296
美国	260146689	$198,157,537	170733	$203,270
蒙古	0	$0	185156	$153,283
孟加拉国	0	$0	41839838	$31,253,841
秘鲁	0	$0	155500	$118,700
缅甸	0	$0	40919732	$28,752,735
摩洛哥	0	$0	71800	$64,831
莫桑比克	0	$0	1425800	$1,126,582
墨西哥	0	$0	41594	$37,812
南非	0	$0	4636876	$3,827,629
尼日利亚	0	$0	19280890	$14,752,968
挪威	53600	$385,458	0	$0
葡萄牙	0	$0	226736	$429,589
日本	138308386	$119,192,957	2097	$1,808
瑞典	592225	$1,311,159	0	$0
瑞士	13820	$29,538	0	$0
萨尔瓦多	0	$0	100	$395
塞拉利昂	0	$0	111000	$83,530
塞内加尔	0	$0	295008	$738,165
沙特阿拉伯	0	$0	933350	$730,875
斯里兰卡	100	$421	6494625	$4,970,071
苏丹	0	$0	50000	$40,250
塔吉克斯坦	0	$0	3639964	$2,709,206
台湾省	189039478	$158,509,895	1856250	$1,353,402
泰国	7476475	$7,452,540	88962805	$66,641,451
坦桑尼亚	0	$0	6436729	$4,899,905
突尼斯	0	$0	35000	$22,690
土耳其	25	$178	3847800	$2,896,816
土库曼斯坦	0	$0	5797000	$4,078,039
委内瑞拉	0	$0	7000	$5,454
乌干达	0	$0	186000	$130,820
乌克兰	0	$0	328500	$237,548
乌兹别克斯坦	0	$0	51701144	$37,516,676
西班牙	64700	$84,690	0	$0
希腊	0	$0	43000	$35,710
香港	397800	$739,861	110	$459
新加坡	7975	$26,025	44380	$54,880
新西兰	0	$0	96000	$56,640
匈牙利	25	$404	0	$0
叙利亚	0	$0	688020	$544,454
牙买加	0	$0	49000	$44,000
亚美尼亚	0	$0	16500	$14,306
也门共和国	0	$0	503000	$378,155
伊拉克	0	$0	93500	$74,333
伊朗	0	$0	4974258	$4,054,165
以色列	150	$448	15000	$14,550
意大利	12279	$23,779	1800	$810
印度	100	$867	238547846	$182,530,469

印度尼西亚	26212000	$20,871,193	5951653	$4,589,952
英国	55122	$136,629	977081	$811,582
约旦	0	$0	225500	$173,689
越南	0	$0	62728925	$46,059,708
赞比亚	0	$0	36000	$33,936
扎伊尔	0	$0	363520	$342,067
智利	0	$0	326025	$287,707
中华人民共和国	136760	$111,560	0	$0
2016	**648006598**	**$540,426,409**	**1038621304**	**$772,903,551**

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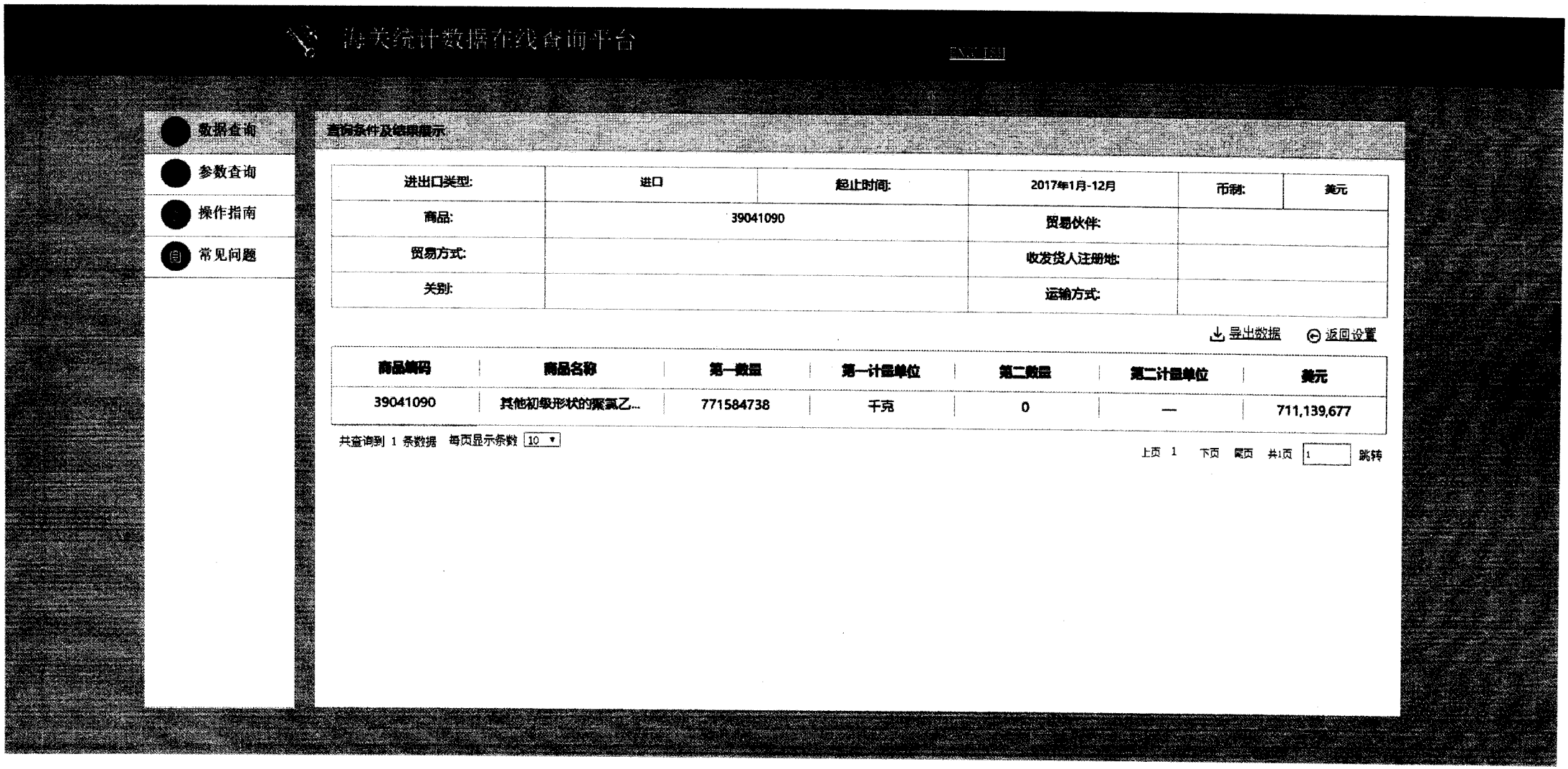
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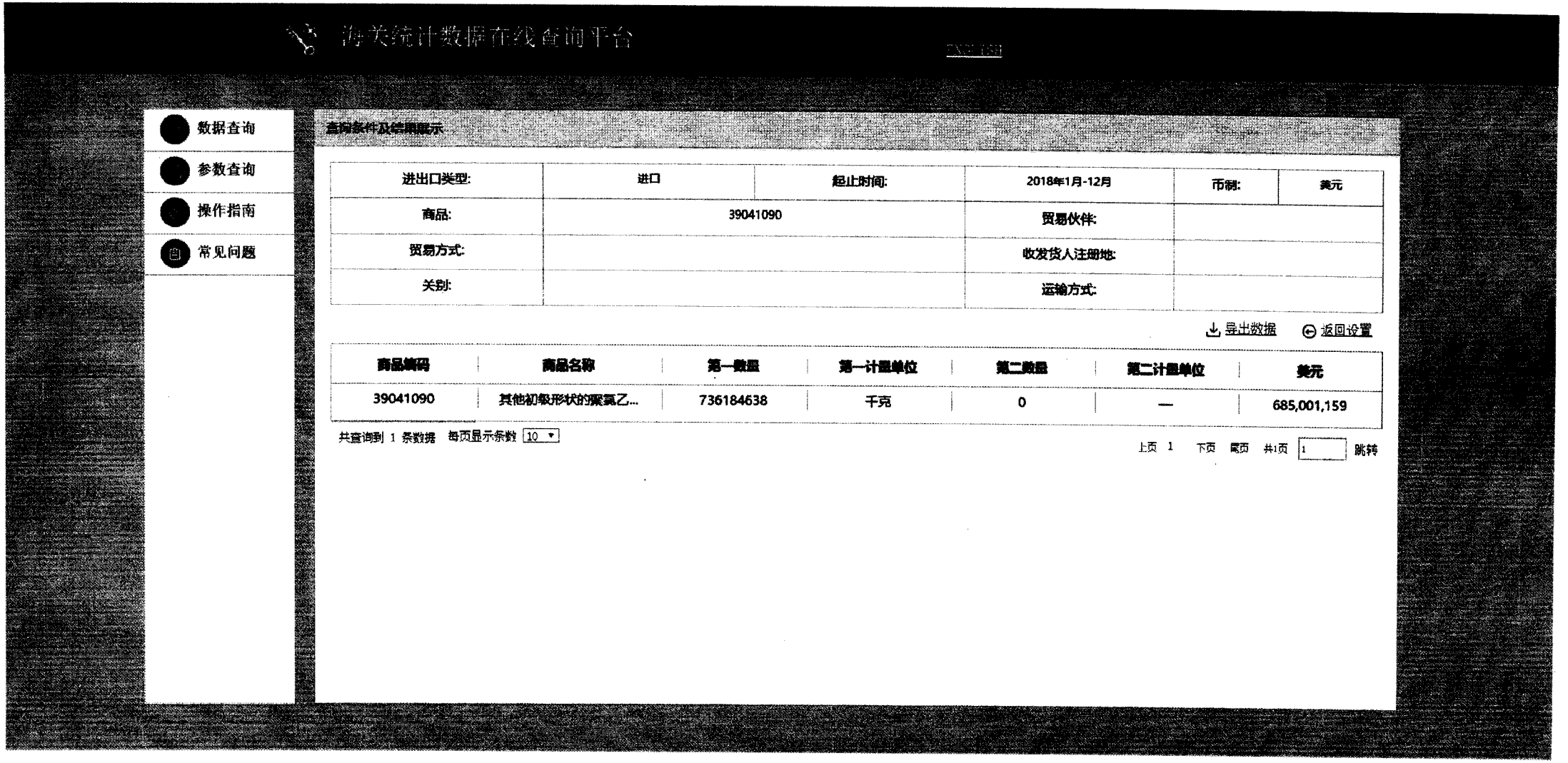
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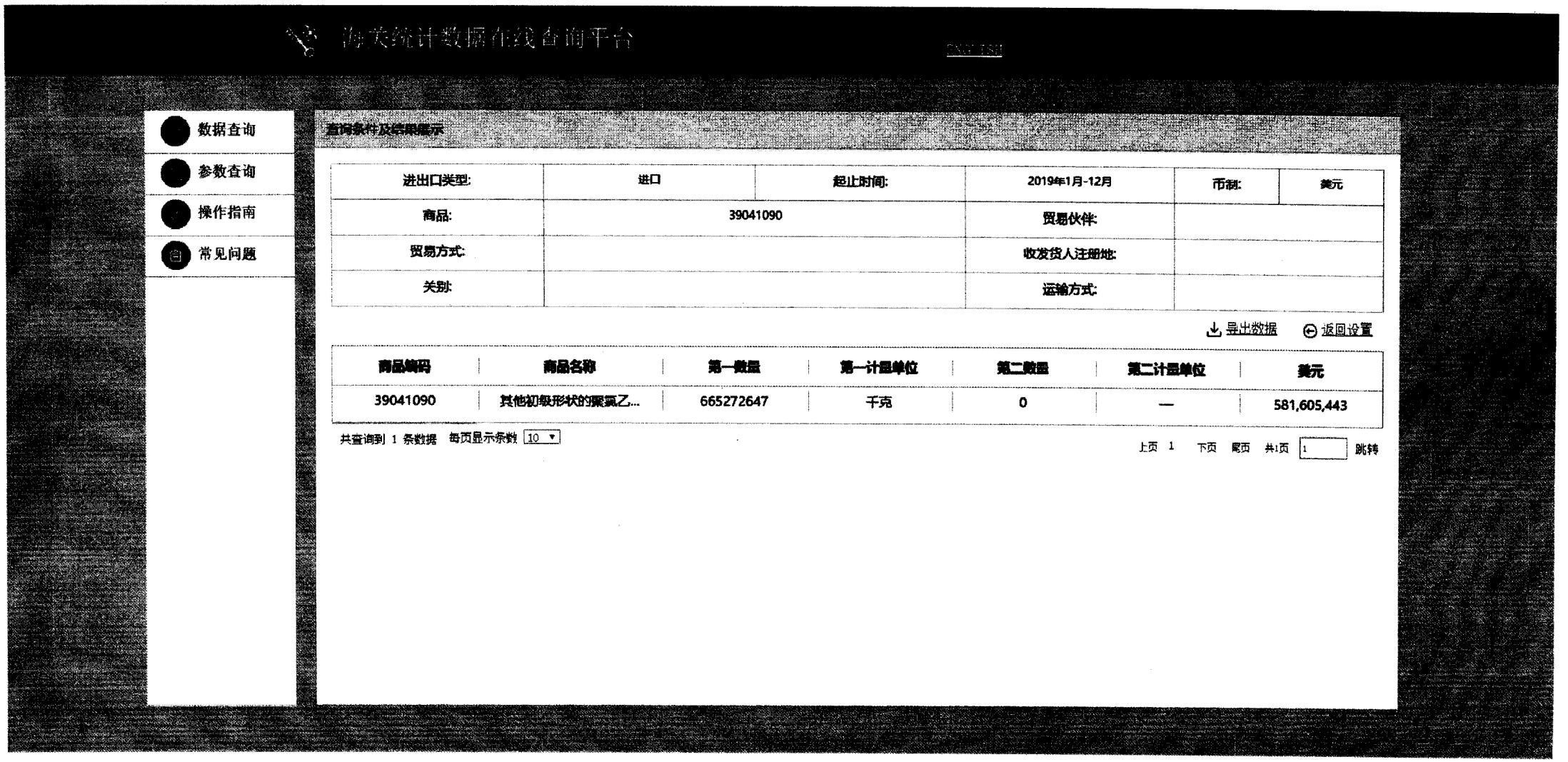
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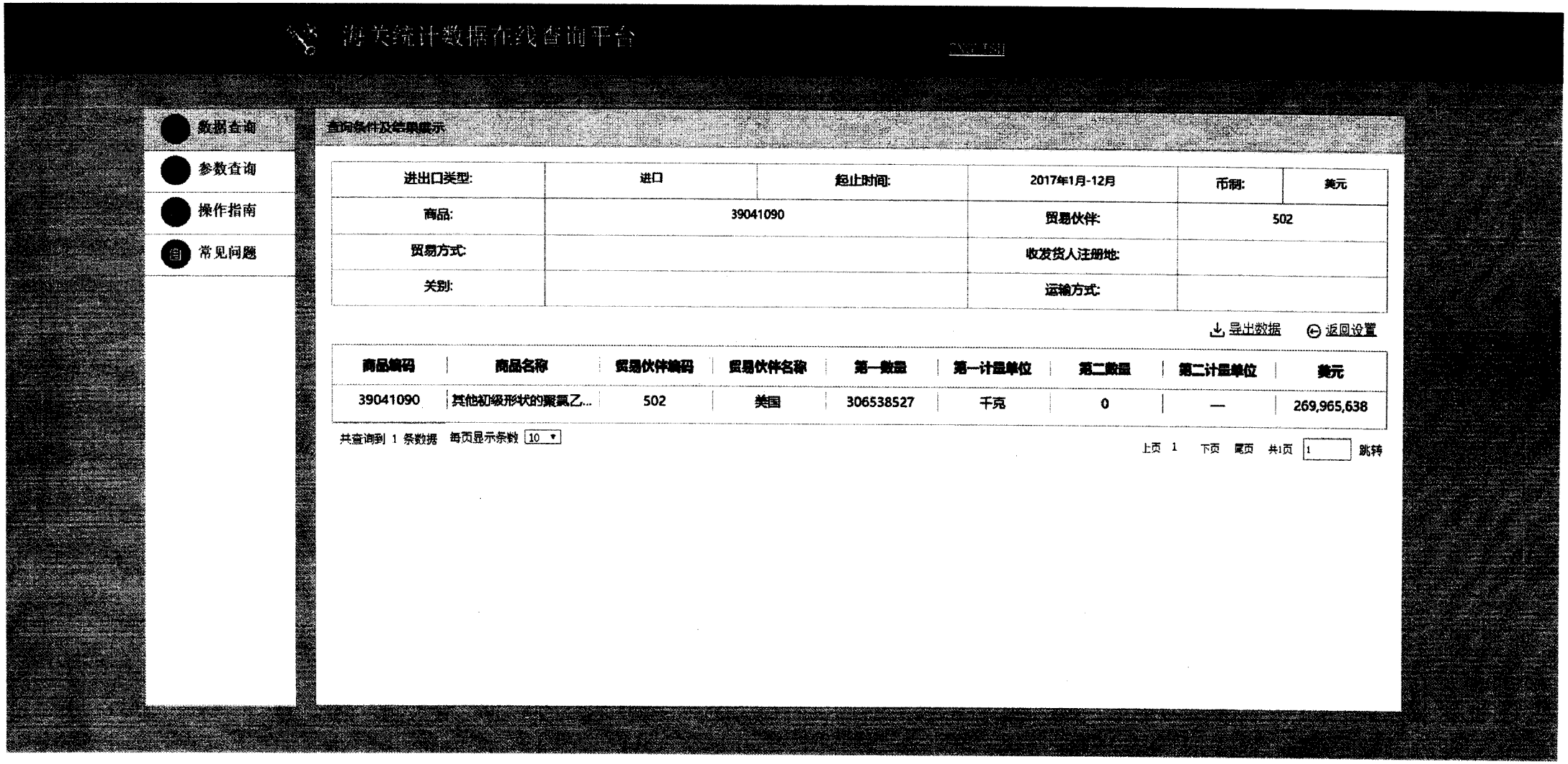
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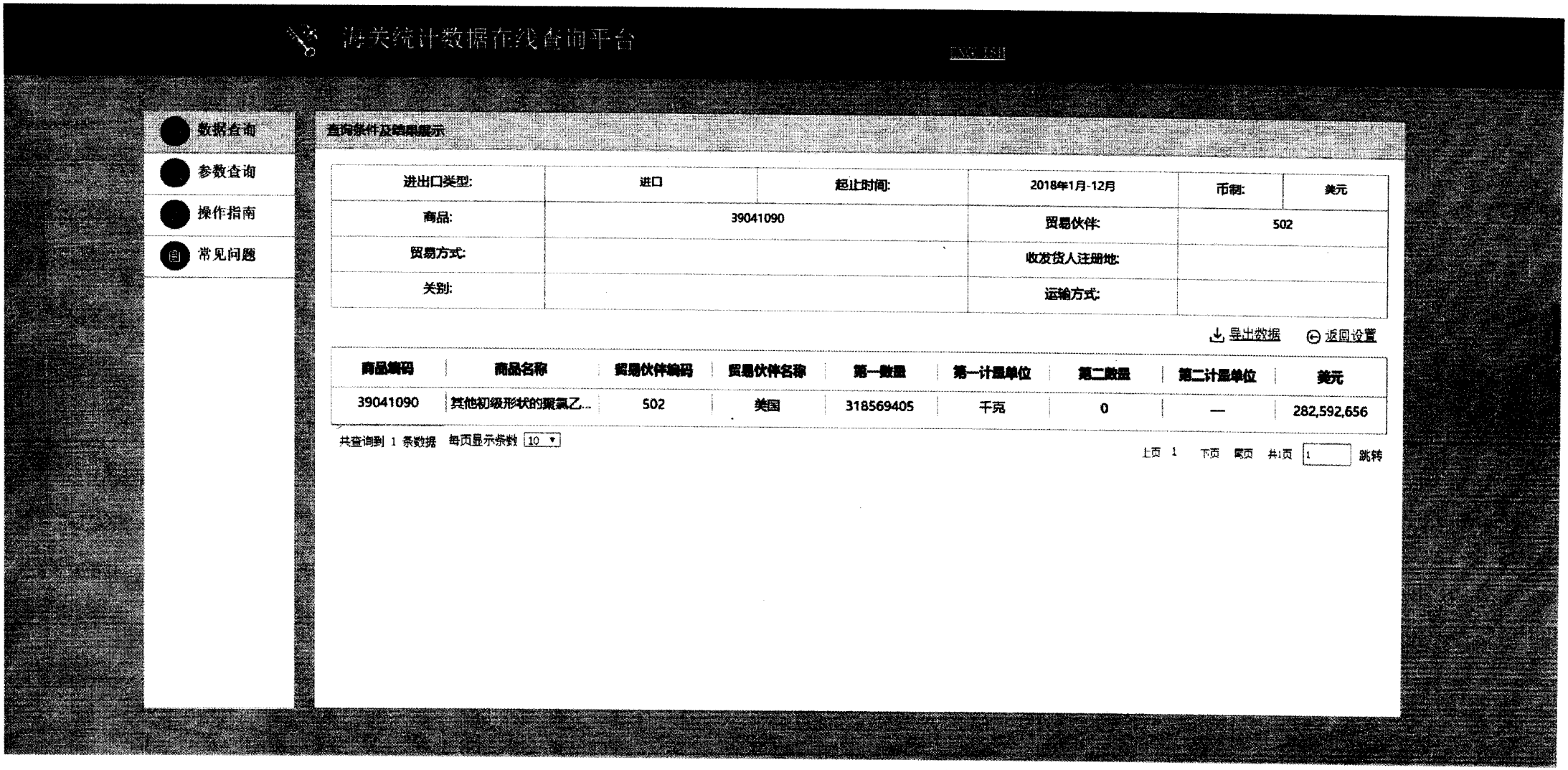
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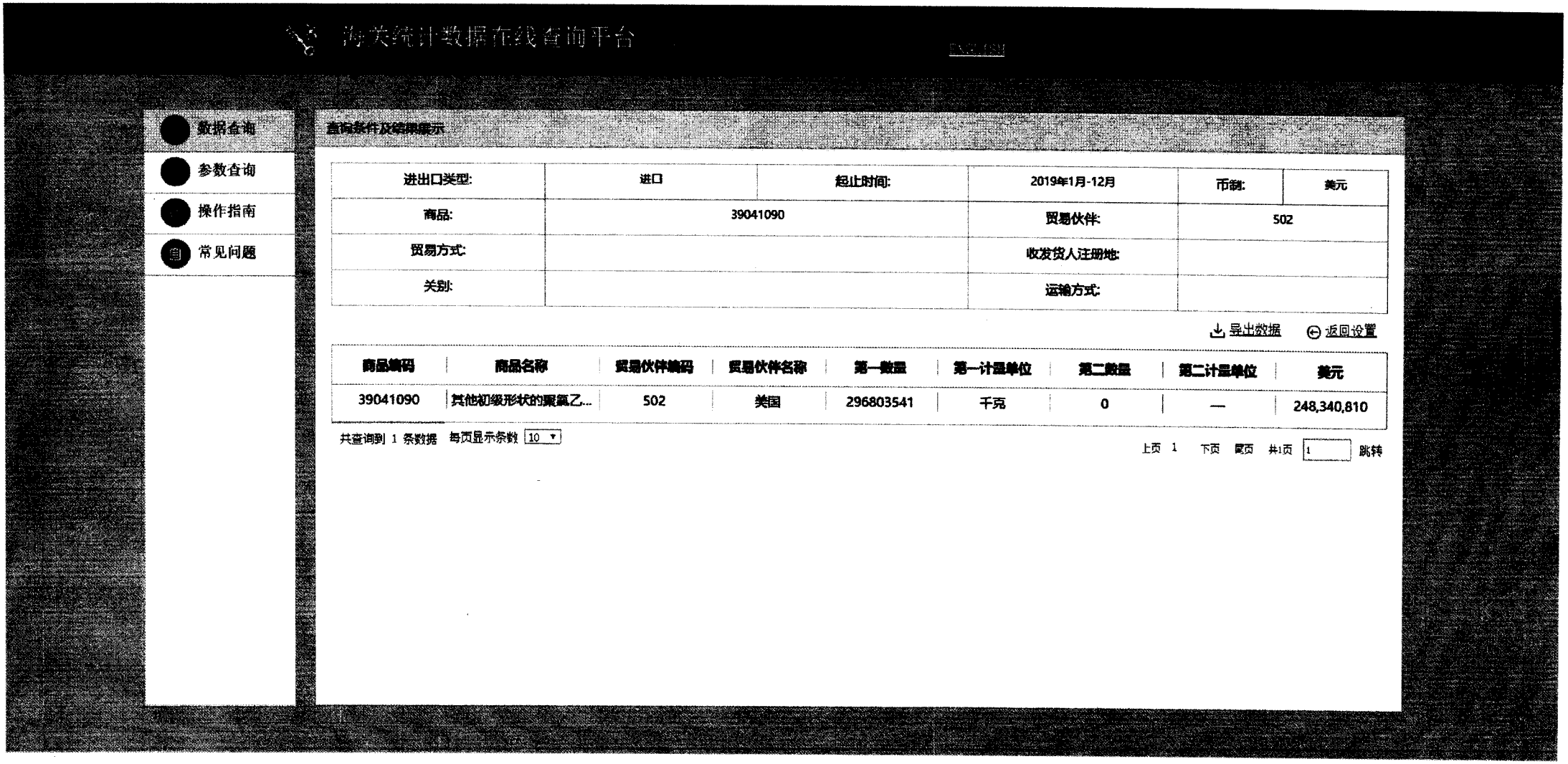
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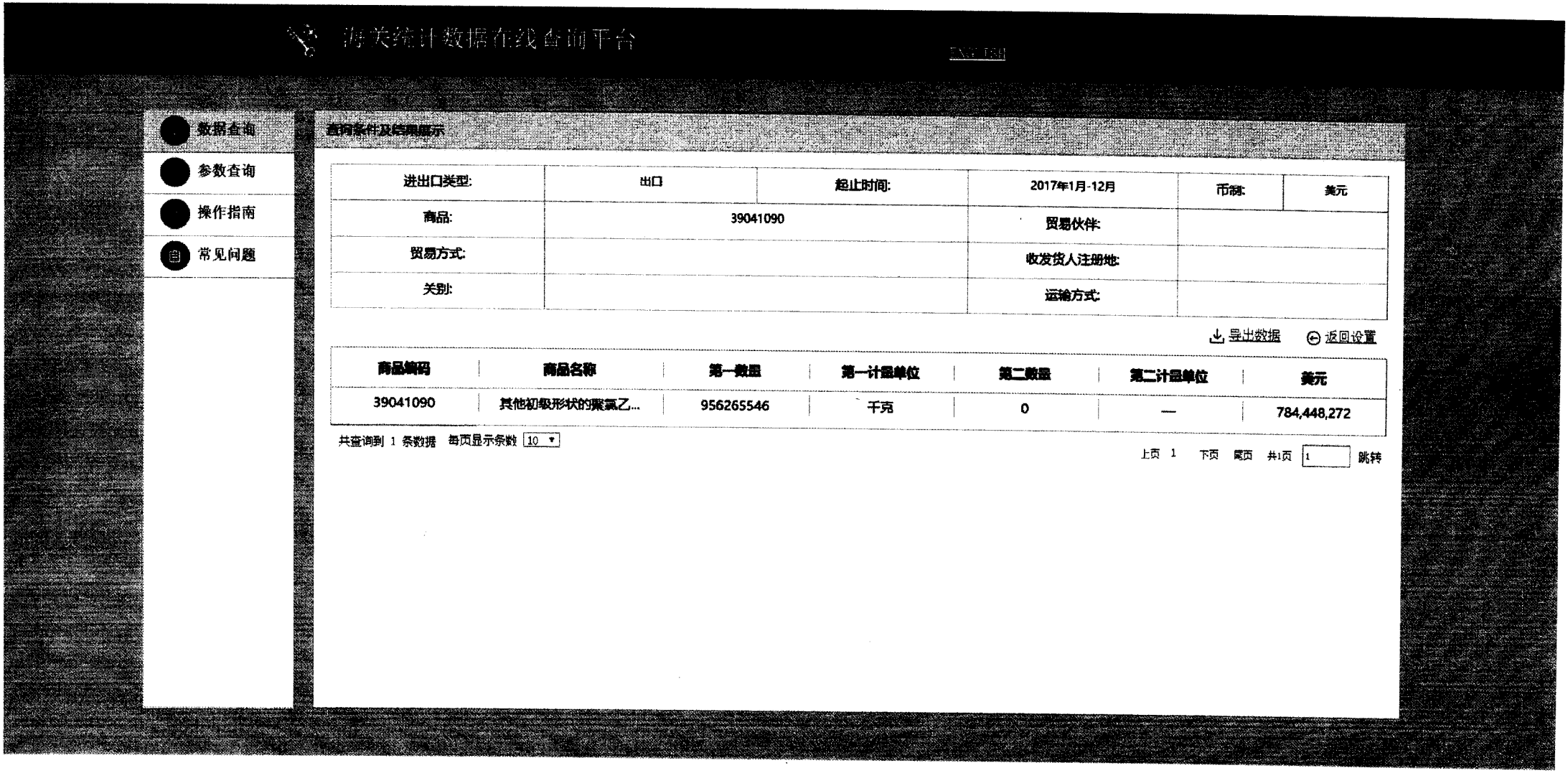
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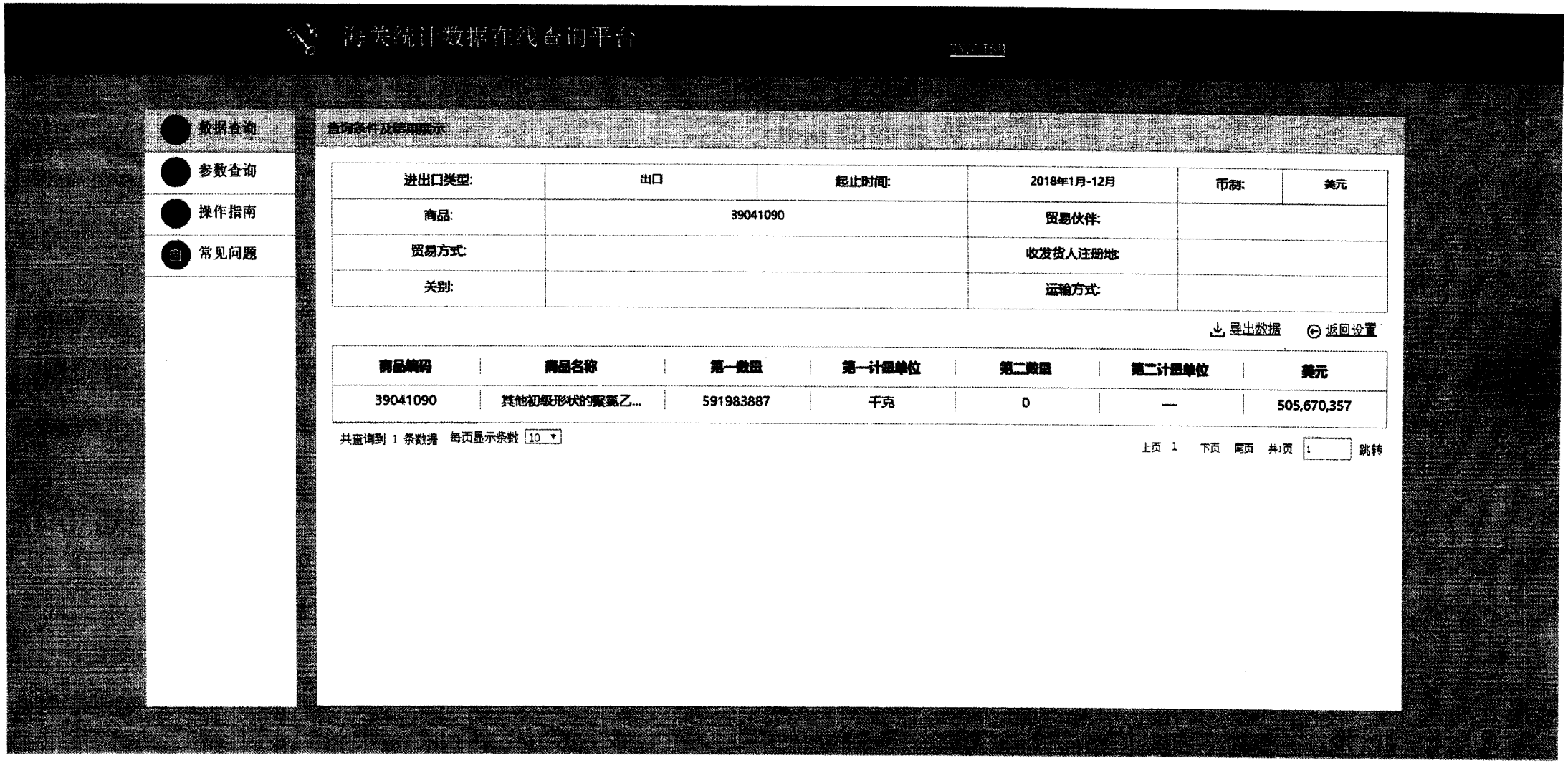
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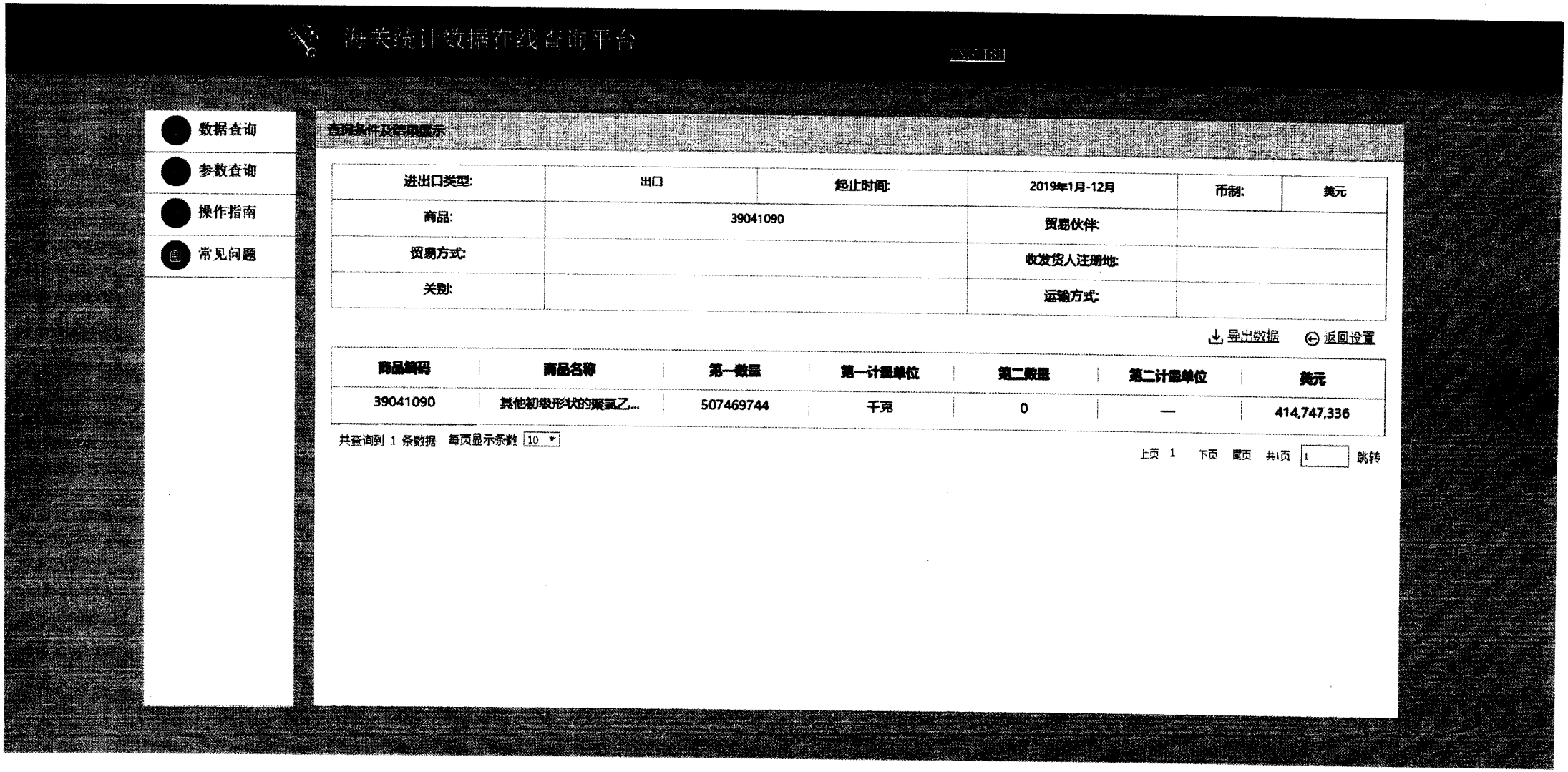
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附件四

申请人聚氯乙烯生产经营情况统计及支持企业聚氯乙烯产能产量情况

（作保密处理）

附件五

全球聚氯乙烯产业概况以及美国聚氯乙烯生产、消费的报告

（作保密处理）

关于全球聚氯乙烯产业概况以及美国聚氯乙烯生产、消费的报告的具体内容如下：

一、全球聚氯乙烯产业概况

聚氯乙烯是个全球性化工产品，世界上约50个国家和地区都有生产。全球聚氯乙烯的生产和消费主要集中在亚洲、美国和欧洲地区。2018年全球产能约5910万吨，产量约4280万吨，消费量约4080万吨。

目前国际上乙烯法工艺生产聚氯乙烯的过程中，主要原料乙烯产品的平均单耗每吨约为0.46-0.5吨（平均每吨约0.48吨），乙烯原料成本约占聚氯乙烯单位生产成本的50%。

全球聚氯乙烯的下游消费主要集中在管材、型材、薄膜、电线电缆、地板革等领域，与建筑行业的关系紧密。

二、美国聚氯乙烯生产及消费情况

2018年美国聚氯乙烯的主要生产企业有美国信科有限公司（Shintech Incorporated）、韦斯特莱克化学公司（Westlake Chemical Corporation）、西方化学公司（Occidental Chemical Corporation）、台湾塑胶工业股份有限公司（美国）（Formosa Plastics Corporation U.S.A.）等。

2018年美国聚氯乙烯的产能、产量及消费量情况如下:

单位：万吨

	产能	产量	消费量
美国	777	698	438.6

附件六

全国聚氯乙烯产能、产量情况统计

（中国氯碱工业协会提供）

全国聚氯乙烯产能、产量情况统计

一、全国聚氯乙烯生产能力、产量

本协会统计的 2016 年至 2019 年全国聚氯乙烯生产能力、产量数据如下：

		2016 年	2017 年	2018 年	2019 年
产能	万吨	2201	2269	2279	2399
产量	万吨	1582	1687	1767	1912

注：生产能力、产量数据为聚氯乙烯纯粉的统计数据，不包含糊树脂。

二、国内聚氯乙烯产业产能、产量

在全国聚氯乙烯生产企业中，有一些企业与此次反倾销调查申请中被申请调查国家的聚氯乙烯生产企业存在关联关系，本协会统计的国内聚氯乙烯产业如下产能产量情况不含上述企业数据。

		2016 年	2017 年	2018 年	2019 年
产能	万吨	2188	2256	2266	2386
产量	万吨	1572	1678	1757	1900

注：表中数据为聚氯乙烯纯粉的统计数据，不包含糊树脂。

中国氯碱工业协会

2020.5.11

附件七

其他相关证据

一、海关进出口税则

二、人民币兑美元汇率

一、海关进出口税则

中华人民共和国海关进出口税则

十位编码·监管条件·申报目录·出口退税·政策法规·海关代征税一览表

2016年中英文对照版（附光盘）

中华人民共和国海关进出口税则 编委会 编

Customs Import and Export Tariff of the People's Republic of China

Decade Coding of HS,Customs Control Conditions,Declares Contents,
Export Drawback,Regulations,Detailed Customs Duties Levied on Commission Basis

Compiled by the Editorial Department of the Customs
Import and Export Tariff of the People's Republic of China

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3902.9000 20	端羟基聚丁二烯,HTPB(作粘接剂或燃料)	6.5	45	17	5	千克	3	Hydroxyl-terminal polybutadiene, HTPB (used as adhesive or fuel)
3902.9000 90	其他初级形状的烯烃聚合物	6.5	45	17	5	千克		Other polymers of olefins, in primary forms
39.03	初级形状的苯乙烯聚合物:							Polymers of styrene, in primary forms:
	-聚苯乙烯:							-Polystyrene:
3903.1100	--可发性的	6.5	45	17	5	千克	AB	--Expansible
	--其他:							--Other:
3903.1910	---改性的	6.5	45	17	13	千克		---Modified
3903.1990	---其他	6.5	45	17	5	千克		---Other
3903.2000	-苯乙烯-丙烯腈(SAN)共聚物	12	45	17	5	千克		-Styrene-acrylonitrile (SAN) copolymers
	-丙烯腈-丁二烯-苯乙烯(ABS)共聚物:							-Acrylonitrile-butadiene-styrene (ABS) copolymers:
3903.3010	---改性的	6.5	45	17	13	千克		---Modified
3903.3090	---其他	6.5	45	17	5	千克		---Other
3903.9000	-其他	6.5	45	17	5	千克		-Other
39.04	初级形状的氯乙烯或其他卤化烯烃聚合物:							Polymers of vinyl chloride or of other halogenated olefins, in primary forms:
	-聚氯乙烯,未掺其他物质:							-Poly(vinyl chloride), not mixed with any other substances:
3904.1010	---糊树脂	6.5	45	17	13	千克		---Paste resins
3904.1090	---其他	6.5	45	17	13	千克		---Other
3904.1090 01	聚氯乙烯纯粉(纯指未掺其他物质)	6.5	45	17	13	千克		Poly (vinyl chloride) (not mixed with any other substances) in powder
3904.1090 90	其他初级形状的纯聚氯乙烯(纯指未掺其他物质)	6.5	45	17	13	千克		Other poly (vinyl chloride) (not mixed with any other substances)
	-其他聚氯乙烯:							-Other poly(vinyl chloride):
3904.2100	--未塑化	6.5	45	17	13	千克		--Non-plasticized
3904.2200	--已塑化	6.5	45	17	13	千克		--Plasticized
3904.3000	-氯乙烯-乙酸乙烯酯共聚物	9	45	17	5	千克		-Vinyl chloride-vinyl acetate copolymers
3904.4000	-其他氯乙烯共聚物	12	45	17	5	千克		-Other vinyl chloride copolymers
3904.5000	-偏二氯乙烯聚合物	6.5	45	17	5	千克		-Vinylidene chloride polymers
	-氟聚合物:							-Fluoro-polymers:
3904.6100	--聚四氟乙烯	10	45	17	13	千克		--Polytetrafluoroethylene
3904.6900	--其他	6.5	45	17	13	千克		--Other
3904.9000	-其他	10	45	17	5	千克		-Other
39.05	初级形状的乙酸乙烯酯或其他乙烯酯聚合物;初级形状的其他乙烯基聚合物:							Polymers of vinyl acetate or of other vinyl esters, in primary forms; other vinyl polymers in primary forms:
	-聚乙酸乙烯酯:							-Poly(vinyl acetate):
3905.1200	--水分散体	10	45	17	5	千克		--In aqueous dispersion
3905.1900	--其他	10	45	17	5	千克		--Other
	-乙酸乙烯酯共聚物:							-Vinyl acetate copolymers:
3905.2100	--水分散体	10	45	17	5	千克		--In aqueous dispersion
3905.2900	--其他	10	45	17	5	千克		--Other
3905.3000	-聚乙烯醇,不论是否含有未水解的乙酸酯基	14	45	17	5	千克	AB	-Poly(vinyl alcohol), whether or not containing unhydrolyzed acetate groups
	-其他:							-Other:
3905.9100	--共聚物	10	45	17	5	千克		--Copolymers
3905.9900	--其他	10	45	17	5	千克		--Other
39.06	初级形状的丙烯酸聚合物:							Acrylic polymers in primary forms:
3906.1000	-聚甲基丙烯酸甲酯	6.5	45	17	13	千克		-Poly(methyl methacrylate)
	-其他:							-Other:
3906.9010	---聚丙烯酰胺	6.5	45	17	5	千克	AB	---Polyacrylamide
3906.9090	---其他		45	17		千克		---Other
3906.9080[8]	Sodium acrylate polymer							Sodium acrylate polymer
3906.9090 10	Other pure polyvinylchlorid, in primary forms	3	45	17	5	千克		Other pure polyvinylchlorid, in primary forms
3906.9090 90	其他丙烯酸聚合物	6.5	45	17	13	千克		Other acrylic polymers
39.07	聚缩醛、其他聚醚及环氧树脂,初级形状;聚碳酸酯、醇酸树脂、聚烯丙基酯及其他聚酯,初级形状:							Polyacetals, other polyethers and epoxide resins, in primary forms; polycarbonates, alkyd resins, polyallyl esters and other polyesters, in primary forms:
	-聚缩醛:							-Polyacetals:

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2017年中英文对照版（附光盘）

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Customs Import and Export Tariff of the People's Republic of China

Decade Coding of HS,Customs Control Conditions,Declares Contents,
Export Drawback,Regulations,Detailed Customs Duties Levied on Commission Basis

Compiled by the Editorial Department of the Customs
Import and Export Tariff of the People's Republic of China

经济日报出版社
Economic Daily Press

税则号列	货品名称	最惠(%)	普通	增值税率	出口退税	计量单位	监管条件	Article Description
39.02	初级形状的丙烯或其他烯烃聚合物：							Polymers of propylene or of other olefins, in primary forms:
3902.1000	-聚丙烯		45	17	13	千克		-Polypropylene
3902.1000[注] 10	电工级初级形状聚丙烯树脂(灰分含量不大于30ppm)	3	45	17	13	千克		Polypropylene resin, in primary forms, electrical grade (ash content≤30ppm)
3902.1000 90	其他初级形状的聚丙烯	6.5	45	17	13	千克		Other polypropylene, in primary forms
3902.2000	-聚异丁烯	6.5	45	17	5	千克	AB	-Polyisobutylene
	-丙烯共聚物：							-Propylene copolymers:
3902.3010	---乙烯-丙烯共聚物(乙丙橡胶)	6.5	45	17	5	千克		---Ethylene-propylene copolymers
3902.3090	---其他	6.5	45	17	5	千克		---Other
3902.9000	-其他	6.5	45	17	5	千克		-Other
3902.9000 10	端羧基聚丁二烯，CTPB(作粘接剂或燃料)	6.5	45	17	5	千克	3	Carboxyl-terminal polybutadiene, CTPB (used as adhesive or fuel)
3902.9000 20	端羟基聚丁二烯，HTPB(作粘接剂或燃料)	6.5	45	17	5	千克	3	Hydroxyl-terminal polybutadiene, HTPB (used as adhesive or fuel)
3902.9000 90	其他初级形状的烯烃聚合物	6.5	45	17	5	千克		Other polymers of olefins, in primary forms
39.03	初级形状的苯乙烯聚合物：							Polymers of styrene, in primary forms:
	-聚苯乙烯：							-Polystyrene:
3903.1100	--可发性的	6.5	45	17	5	千克		--Expansible
	--其他：							--Other:
3903.1910	---改性的	6.5	45	17	13	千克		---Modified
3903.1990	---其他	6.5	45	17	5	千克		---Other
3903.2000	-苯乙烯-丙烯腈(SAN)共聚物	12	45	17	5	千克		-Styrene-acrylonitrile (SAN) copolymers
	-丙烯腈-丁二烯-苯乙烯(ABS)共聚物：							-Acrylonitrile-butadiene-styrene (ABS) copolymers:
3903.3010	---改性的	6.5	45	17	13	千克		---Modified
3903.3090	---其他	6.5	45	17	5	千克		---Other
3903.9000	-其他	6.5	45	17	5	千克		-Other
39.04	初级形状的氯乙烯或其他卤化烯烃聚合物：							Polymers of vinyl chloride or of other halogenated olefins, in primary forms:
	-聚氯乙烯，未掺其他物质：							-Poly (vinyl chloride), not mixed with any other substances:
3904.1010	---糊树脂	6.5	45	17	13	千克		---Paste resins
3904.1090	---其他	6.5	45	17	13	千克		---Other
3904.1090 01	聚氯乙烯纯粉(纯指未掺其他物质)	6.5	45	17	13	千克		Poly (vinyl chloride) (not mixed with any other substances) in powder
3904.1090 90	其他初级形状的纯聚氯乙烯(纯指未掺其他物质)	6.5	45	17	13	千克		Other poly (vinyl chloride) (not mixed with any other substances)
	-其他聚氯乙烯：							-Other poly(vinyl chloride):
3904.2100	--未塑化	6.5	45	17	13	千克		--Non-plasticized
3904.2200	--已塑化	6.5	45	17	13	千克		--Plasticized
3904.3000	-氯乙烯-乙酸乙烯酯共聚物	9	45	17	5	千克		-Vinyl chloride-vinyl acetate copolymers
3904.4000	-其他氯乙烯共聚物	12	45	17	5	千克		-Other vinyl chloride copolymers
3904.5000	-偏二氯乙烯聚合物	6.5	45	17	5	千克		-Vinylidene chloride polymers
	-氟聚合物：							-Fluoro-polymers:
3904.6100	--聚四氟乙烯	10	45	17	13	千克		--Polytetrafluoroethylene
3904.6900	--其他	6.5	45	17	13	千克		--Other
3904.9000	-其他	10	45	17	5	千克		-Other

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中华人民共和国海关进出口税则

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2018年中英文对照版(附光盘)

中华人民共和国海关进出口税则 编委会 编

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税则号列	货品名称	增值(%)	普通	增值税率	出口退税	计量单位	监管条件	Article Description
	第一分章　初级形状							I.-PRIMARY FORMS
39.01	初级形状的乙烯聚合物：							Polymers of ethylene, in primary forms:
3901.1000	-聚乙烯，比重小于0.94		45	17	13	千克		-Polyethylene having a specific gravity of less than 0.94
3901.1000*01	初级形状比重<0.94的聚乙烯(进口CIF价高于3800美元/吨)	3	45	17	13	千克		Polyethylene having a specific gravity of less than 0.94, in primary forms(CIF>USD3800/ton)
3901.1000 90	初级形状比重<0.94的聚乙烯	6.5	45	17	13	千克		Polyethylene having a specific gravity of less than 0.94, in primary forms
3901.2000	-聚乙烯，比重在0.94及以上		45	17	13	千克		-Polyethylene having a specific gravity of 0.94 or more
3901.2000*01	初级形状比重≥0.94的聚乙烯(进口CIF价高于3800美元/吨)	3	45	17	13	千克		Polyethylene having a specific gravity of 0.94 or more in primary forms(CIF>USD3800/ton)
3901.2000 90	初级形状比重≥0.94的聚乙烯	6.5	45	17	13	千克		Polyethylene having aspecific gravity of 0.94 or more, in primary forms
3901.3000	-乙烯-乙酸乙烯酯共聚物	6.5	45	17	5	千克		-Ethylene-vinyl acetate copolymers
	--乙烯－α－烯烃共聚物，比重小于0.94：							--Ethylene--alpha－olefin copoly－mers, having a specific gravity of less than 0.94:
3901.4010	---乙烯-丙烯共聚物(乙丙橡胶)	6.5	45	17	5	千克		---Ethylene-propylene copoly-mers
3901.4020	---线型低密度聚乙烯	6.5	45	17	13	千克		---Linearity low density polyeth－Ylene
3901.4090	---其他	6.5	45	17	13	千克		---Other
	-其他：							-Other:
3901.9010	---乙烯-丙烯共聚物(乙丙橡胶)	6.5	45	17	5	千克		---Ethylene-propylene copolymers
3901.9090	---其他	6.5	45	17	13	千克		---Other
39.02	初级形状的丙烯或其他烯烃聚合物：							Polymers of propylene or of other olefins, in primary forms:
3902.1000	-聚丙烯		45	17	13	千克		-Polypropylene
3902.1000*10	电工级初级形状聚丙烯树脂(灰分含量不大于30ppm)	3	45	17	13	千克		Polypropylene resin, in primary forms, electrical grade (ash content≤30ppm)
3902.1000 90	其他初级形状的聚丙烯	6.5	45	17	13	千克		Other polypropylene, in primary forms
3902.2000	-聚异丁烯	6.5	45	17		千克	AB	-Polyisobutylene
	-丙烯共聚物：							-Propylene copolymers:
3902.3010	---乙烯-丙烯共聚物(乙丙橡胶)	6.5	45	17	5	千克		---Ethylene-propylene copolymers
3902.3090	---其他	6.5	45	17	5	千克		---Other
3902.9000	-其他	6.5	45	17	5	千克		-Other
3902.9000 10	端羧基聚丁二烯，CTPB(作粘接剂或燃料)	6.5	45	17	5	千克	3	Carboxyl-terminal polybutadiene, CTPB (used as adhesive or fuel)
3902.9000 20	端羟基聚丁二烯，HTPB(作粘接剂或燃料)	6.5	45	17	5	千克	3	Hydroxyl-terminal polybutadiene, HTPB (used as adhesive or fuel)
3902.9000 90	其他初级形状的烯烃聚合物	6.5	45	17	5	千克		Other polymers of olefins, in primary forms
39.03	初级形状的苯乙烯聚合物：							Polymers of styrene, in primary forms:
	-聚苯乙烯：							-Polystyrene:
3903.1100	--可发性的	6.5	45	17	5	千克		--Expansible
	--其他：							--Other:
3903.1910	---改性的	6.5	45	17	13	千克		---Modified
3903.1990	---其他	6.5	45	17	5	千克		---Other
3903.2000	-苯乙烯-丙烯腈(SAN)共聚物	12	45	17	5	千克		-Styrene-acrylonitrile (SAN) copolymers
	-丙烯腈-丁二烯-苯乙烯(ABS)共聚物：							-Acrylonitrile-butadiene-styrene (ABS) copolymers:
3903.3010	---改性的	6.5	45	17	13	千克		---Modified
3903.3090	---其他	6.5	45	17	5	千克		---Other
3903.9000	-其他	6.5	45	17	5	千克		Other
39.04	初级形状的氯乙烯或其他卤化烯烃聚合物：							Polymers of vinyl chloride or of other halogenated olefins, in primary forms:
	-聚氯乙烯，未掺其他物质：							-Poly(vinyl chloride), not mixed with any other substances:
3904.1010	--糊树脂	6.5	45	17	13	千克		--Paste resins
3904.1090	--其他	6.5	45	17	13	千克		--Other
3904.1090 01	聚氯乙烯纯粉(纯指未掺其他物质)	6.5	45	17	13	千克		Poly(vinyl chloride)(not mixed with any other substances) in powder
3904.1090 90	其他初级形状的纯聚氯乙烯(纯指未掺其他物质)	6.5	45	17	13	千克		Other poly(vinyl chloride)(not mixed with any other substances)
	-其他聚氯乙烯：							Other poly(vinyl chloride):
3904.2100	--未塑化	6.5	45	17	13	千克		--Non plasticized
3904.2900	--已塑化	6.5	45	17	13	千克		--Plasticized

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中华人民共和国海关进出口税则

十三位编码·监管条件·出口退税·政策法规·海关代征税一览表

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		第一分章 初级形状								
39.01		初级形状的乙烯聚合物:								
3901.1000		-聚乙烯,比重小于0.94								
3901.1000	01	初级形状比重<0.94的聚乙烯(进口CIF价高于3800美元/吨)(999)	6.5	3	45	13/	13	千克		
3901.1000	90	初级形状比重<0.94的聚乙烯(999)	6.5		45	13/	13	千克		
3901.2000		-聚乙烯,比重在0.94及以上			45	17	13	千克		
3901.2000	01	初级形状比重≥0.94的聚乙烯(进口CIF价高于3800美元/吨)(999)	6.5	3	45	13/	13	千克		
3901.2000	90	初级形状比重≥0.94的聚乙烯(999)	6.5		45	13/	13	千克		
3901.3000		-乙烯-乙酸乙烯酯共聚物(999)	6.5		45	13/	10	千克		
		-乙烯-α-烯烃共聚物,比重小于0.94:								
3901.4010		---乙烯-丙烯共聚物(乙丙橡胶)(999)	6.5		45	13/	10	千克		
3901.4020		---线型低密度聚乙烯(999)	6.5		45	13/	13	千克		
3901.4090		---其他(999)	6.5		45	13/	13	千克		
		-其他:								
3901.9010		---乙烯-丙烯共聚物(乙丙橡胶)(999)	6.5		45	13/	10	千克		
3901.9090		---其他(999)	6.5		45	13/	13	千克		
39.02		初级形状的丙烯或其他烯烃聚合物:								
3902.1000		-聚丙烯								
3902.1000	10	电工级初级形状聚丙烯树脂(灰分含量不大于30ppm)(999)	6.5	3	45	13/	13	千克		
3902.1000	90	其他初级形状的聚丙烯(999)	6.5		45	13/	13	千克		
3902.2000		-聚异丁烯[101无检疫要求食品添加剂,999,301需申报仅用于工业用途不用于食品添加剂无检疫要求的化学品]	6.5		45	13/	10	千克	A	R
		-丙烯共聚物:								
3902.3010		---乙烯-丙烯共聚物(乙丙橡胶)(999)	6.5		45	13/	10	千克		
3902.3090		---其他(999)	6.5		45	13/	13	千克		
3902.9000		-其他								
3902.9000	10	端羧基聚丁二烯,CTPB(作粘接剂或燃料)(999)	6.5		45	13/	10	千克	3	
3902.9000	20	端羟基聚丁二烯,HTPB(作粘接剂或燃料)(999)	6.5		45	13/	10	千克	3	
3902.9000	90	其他初级形状的烯烃聚合物(999)	6.5		45	13/	10	千克		
39.03		初级形状的苯乙烯聚合物:								
		-聚苯乙烯:								
3903.1100		--可发性的(301)	6.5		45	13/	10	千克		
		--其他:								
3903.1910		---改性的(999)	6.5		45	13/	13	千克		
3903.1990		---其他(999)	6.5		45	13/	10	千克		
3903.2000		-苯乙烯-丙烯腈(SAN)共聚物(999)	12		45	13/	10	千克		
		-丙烯腈-丁二烯-苯乙烯(ABS)共聚物:								
3903.3010		---改性的(999)	6.5		45	13/	13	千克		
3903.3090		---其他(999)	6.5		45	13/	10	千克		
3903.9000		-其他(999)	6.5		45	13/	10	千克		
39.04		初级形状的氯乙烯或其他卤化烯烃聚合物:								
		-聚氯乙烯,未混其他物质:								
3904.1010		---糊树脂(999)	6.5		45	13/	13	千克		
3904.1090		---其他								
3904.1000	01	聚氯乙烯纯粉(纯粉未掺其他物质)(999)	6.5		45	13/	13	千克		
3904.1090	90	其他初级形状的纯聚氯乙烯(纯粉未掺其他物质)(999)	6.5		45	13/	13	千克		
		-其他聚氯乙烯:								
3904.2100		--未塑化(999)	6.5		45	13/	13	千克		
3904.2200		--已塑化(999)	6.5		45	13/	13	千克		
3904.3000		-氯乙烯-乙酸乙烯酯共聚物(999)	9		45	13/	10	千克		
3904.4000		-其他氯乙烯共聚物(999)	12		45	13/	10	千克		
3904.5000		-偏二氯乙烯聚合物								
3904.5000	10	偏二氯乙烯—氯乙烯共聚树脂(999)	6.5		45	13/	10	千克		
3904.5000	90	其他偏二氯乙烯聚合物(999)	6.5		45	13/	10	千克		
		-氟聚合物:								
3904.6100		--聚四氟乙烯(999)	10		45	13/	13	千克		
3904.6900		--其他(999)	6.5		45	13/	13	千克		

协定税率 %									新西/兰/智	港/澳/台	亚太3国	东/柬/缅	37/3/1	Article Description
														1. PRIMARY FORMS
														Polymers of ethylene, in primary forms:
														-Polyethylene having a specific gravity of less than 0.94
1	/0/	6	5.9	3.7	0			0	0//0	0/0/				Polyethylene having a specific gravity of less than 0.94, in primary forms(CIF>USD3800/ton)
1	/0/	6	5.9	3.7	0			0	0//0	0/0/				Polyethylene having a specific gravity of less than 0.94, in primary forms
														-Polyethylene having a specific graviey of 0.94 or more
1	/0/	6	5.9	3.7	0			0	0//0	0/0/				Polyethylene having a specific gravity of 0.94 or more in primary forms(CIF>USD3800/ton)
1	/0/	6	6.9	3.7	0			0	0//0	0/0/				Polyethylene having aspecific gravity of 0.94 or more, in primary forms
1	0/0/	6	5.9	0	0	0		0	0//0	0/0/			0/0/	-Ethylene vinyl acetate copolymers
														--Ethylene-alpha-olefin copoly-mers, having a specific gravity of less than 0.94:
	0/0/0	6	4.3	0	0	0		0	0/0/0	0/0/			0/0/	---Ethylene propylene copoly-mers
	0/0/	5		0	0			0	0/0/0	0/0/			0/0/0	---Linearity low density polyeth-Ylene
12	0/0/0	5	4.2	0	0	0		0	0/0/0	0/0/			0/0/	---Other
														-Other:
	0/0/0	5	4.3	0	0	0		0	0/0/0	0/0/			0/0/	---Ethylene-propylene copolymers
12	0/0/0	5	4.2	0	0	0		0	0/0/0	0/0/			0/0/	---Other
														Polymers of propylene or of other olefins, in primary forms:
														-Polypropylene
	0/0/	6		3.7	0			0	0/0/0	0/0/				Polypropylene resin, in primary forms, electrical grade (ash content ≤30ppm)
	0/0/	5		3.7	0			0	0/0/0	0/0/				Other polypropylene, in primary forms
	0/0/0	6		0	0	0		0	0//0	0/0/			0/0/0	-Polyisobutylene
														-Propylene copolymers:
1	0/0/0	5	4.3	0	0	0		0	0/0/0	0/0/0			0/0/0	---Ethylene-propylene copolymers
1	0/0/	5	5.9	0	0	0		0	0/0/0	0/0/			0/0/0	---Other
														-Other
	0/0/0	5		0	0	0		0	0/0/0	0/0/0			0/0/0	Carboxyl-terminal polybutadiene, CTPB (used as adhesive or fuel)
	0/0/0	5		0	0	0		0	0/0/0	0/0/0			0/0/0	Hydroxyl-terminal polybutadiene, HTPB (used as adhesive or fuel)
	0/0/0	5		0	0	0		0	0/0/0	0/0/0			0/0/0	Other polymers of olefins, in primary forms
														Polymers of styrene, in primary forms:
														-Polystyrene:
4	0/0/3.9	5	5.9	0	0	0		0	0/0/0	0/0/			0/0/0	--Expansible
														--Other:
4	0/0/	5	4.8	0	0	0		0	0/0/0	0/0/			0/0/0	---Modified
4	0/0/	5	4.8	0	0	0		0	0/0/0	0/0/			0/0/0	---Other
	0/0/0	6	9.6	4.8	0	0		0	0/0/0	0/0/0			0/0/	-Styrene-acrylonitrile (SAN) copolymers
														-Acrylonitrile-butadiene-styrene (ABS) copolymers:
4	0/0/	5	4.8	3.7	0	0		0	0/0/0	0/0/			0/0/0	---Modified
4	0/0/	5	4.8	2.6	0	0		0	0/0/0	0/0/			0/0/0	---Other
4	0/0/0	5	4.3	0	0	0		0	0/0/0	0/0/0			0/0/0	-Other
														Polymers of vinyl chloride or of other halogenated olefins, in primary forms:
														-Poly(vinyl chloride), not mixed with any other substances:
12	0/0/3.9	4	4.8	0	0	0		0	0/0/0	0/0/			0/0/0	---Paste resins
														---Other
12	0/0/	6	4.2	0	0	0		0	0/0/0	0/0/			0/0/0	Poly (vinyl chloride) (not mixed with any other substances) in powder
12	0/0/	6	4.2	0	0	0		0	0/0/0	0/0/			0/0/0	Other poly (vinyl chloride)(not mixed with any other substances)
														-Other poly(vinyl chloride):
	0/0/3.9	5	4.8	0	0	0		0	0/0/0	0/0/			0/0/0	--Non-plasticised
	0/0/		4.8	0	0	0		0	0/0/0	0/0/			0/0/0	--Plasticised
8.4	0/0/0	5	6	0	0	0		0	0//0	0/0/			0/0/0	-Vinyl chloride-vinyl acetate copolymers
7.5	0/0/0	6	8	4.8	0	0		0	0/0/0	0/0/			0/0/	-Other vinyl chloride copolymers
														-Vinylidene chloride polymers
	0/0/0	5	0	0	0	0		0	0//0	0/0/			0/0/0	Vinylidene Chloride—Vinyl Chloride Copolymer Resin
	0/0/0	5	0	0	0	0		0	0//0	0/0/			0/0/0	Other vinylidene chloride polymers, in primary forms
														-Fluoro-polymers:
	0/0/0	5	5	0	0	0		0	0/0/0	0/0/			0/0/0	--Polytetrafluoroethylene
	0/0/0	5	0	0	0	[illegible]		[illegible]	[illegible]	[illegible]			0/0/0	--Other

二、人民币兑美元汇率

汇率

Exchange Rate

一特别提款权单位折合人民币元（期末数） Yuan per SDR (End of Period)	9.0445	9.0215	9.1027	9.1789	9.2295	9.276	9.2675	9.3293	9.3209	9.2929	9.3227	9.3256
一美元折合人民币（期末数） Yuan per US Dollar (End of Period)	6.5516	6.5452	6.4612	6.4589	6.579	6.6312	6.6511	6.6908	6.6778	6.7641	6.8865	6.937
一美元折合人民币（平均数） Yuan per US Dollar (Period Average)	6.5527	6.5311	6.5064	6.4762	6.5315	6.5874	6.6774	6.6474	6.6715	6.7442	6.8375	6.9182

6.6401

汇率
Exchange Rate

一特别提款权单位折合人民币元（期末数） Yuan per SDR (End of Period)	9.3480	9.3002	9.3501	9.4569	9.4534	9.4364	9.4693	9.3223	9.3958	9.3110	9.3521	9.2734
一美元折合人民币（期末数） Yuan per US Dollar (End of Period)	6.8588	6.8750	6.8993	6.8931	6.8633	6.7744	6.7283	6.6010	6.6369	6.6397	6.6034	6.5342
一美元折合人民币（平均数） Yuan per US Dollar (Period Average)	6.8918	6.8713	6.8932	6.8845	6.8827	6.8019	6.7654	6.6736	6.5634	6.5154	6.6186	6.5942

6.7463

汇率
Exchange Rate

一特别提款权单位折合人民币元（期末数） Yuan per SDR（End of Period）	9.2293	9.1516	9.142	9.1162	9.0694	9.3067	9.5763	9.5639	9.5982	9.5732	9.5928	9.5760
一美元折合人民币（期末数） Yuan per US Dollar（End of Period）	6.3339	6.3294	6.2881	6.3393	6.4144	6.6166	6.8165	6.8246	6.8792	6.9646	6.9357	6.8632
一美元折合人民币（平均数） Yuan per US Dollar（Period Average）	6.4364	6.3162	6.322	6.2975	6.3758	6.4556	6.7034	6.8433	6.8448	6.9246	6.9351	6.8853

6.6117

汇率
Exchange Rate

一特别提款权单位折合人民币元（期末数） Yuan per SDR (End of Period)	9.3882	9.3526	9.3479	9.3242	9.5045	9.5573	9.4685	9.6907	9.6426	9.7293	9.6512	9.6975
一美元折合人民币（期末数） Yuan per US Dollar (End of Period)	6.7025	6.6901	6.7335	6.7286	6.8992	6.8747	6.8841	7.0879	7.0729	7.0533	7.0298	6.9762
一美元折合人民币（平均数） Yuan per US Dollar (Period Average)	6.7897	6.7364	6.7093	6.7151	6.8524	6.882	6.8752	7.0214	7.0785	7.0702	7.0177	7.0128

6.8967

附件八

关于美国向中国出口聚氯乙烯运费、保险费的说明及有关证据:

一、关于美国向中国出口聚氯乙烯运费的说明及有关证据

二、关于美国向中国出口聚氯乙烯保险费的说明及有关证据

一、关于美国向中国出口聚氯乙烯运费的说明及有关证据

关于美国向中国出口聚氯乙烯运费的说明

据申请人了解，聚氯乙烯海运出口一般采用20呎集装箱货柜，每个货柜可以运输20吨。根据中国国际海运网及锦城物流网的报价，一个20呎集装箱货柜运抵美国主要港口的平均费用为USD2995。推算出每吨聚氯乙烯运抵美国主要港口的费用为USD149.75。

因此，申请人本着稳健原则，有理由推定美国的聚氯乙烯出口到中国主要港口的每吨运费为USD140。

Shanghai[上海]----Los angeles[洛杉矶]

运价发布公司：上海聚嘉国际货运货运代理有限公司

20'GP 运价	40'GP 运价	40'HQ 运价	公司优势：
2200	1500	3500	

所属航线： 中国-北美 CHINA--NORTH AMERICA 航线

集装箱种类： 普箱

航期： 20

截关日期： 5截3开

限重： 15吨

中转港：

所属船东： cosco

有效期： 此航线运价至 [2020-09-08] 前有效

备注： 上海聚嘉国际货运代理公司为您提供海运报价/操作 加拿大FBA海运到港/聚嘉国际货运代理和报关。聚嘉国际作为专跨境电商物流企业，自有一站式进出口服务系统平台，有着完善的海外代理网络和专业操作DDU/DDP服务优势．帮助使用亚马逊全球开店项目FBA服务的卖家．通过空运/快递/海运等运输方式将卖家的货物从中国运输转运到德国、美国、法国、英国、日本等亚马逊仓库，并提供相应增值服务帮助使用亚马逊全球开店项目FBA服务的卖家，将货物从中国运输转运到美国、英国各亚马逊仓库的服务。 亚马逊FBA头程配送可提供服务： 一、运输服务 提供到日本FBA、英国FBA、美国FBA、德国FBA 亚马逊仓库物流配送和清关服务 二、增值服务 1. 打印亚马逊标签：按照亚马逊FBA条码内容要求打印每个产品相应的标签 2. 代贴标签：按照亚马逊FBA入库要求，每件产品都贴上相应的条码 3. 分箱：按照亚马逊FBA入库产品的种类和数量要求，分拣按箱包装 三、退货服务 可提供我司美国、英国．日本．德国公司，

运价发布公司简介

上海聚嘉国际货运货运代理有限公司

信誉级别：

公司评价： 好 (0)，坏 (0)

注册时间： 2018-08-13

主营业务：

公司简介：

上海聚嘉国际货运代理公司为您提供海运报价/操作 加拿大FBA海运到港/聚嘉国际货运代理和报关。聚嘉国际作为专跨境电商物流企业，自有一站式进出口服务系统平台，有着完善的海外代理网络和专业操作DDU/DD..

站内短信 公司主站

用蓝银可兑换以下广告位

找合作，物流牛人快人一步

上海到纽约海运费

3790	4605	4605	-
20'	40'	40HQ	45'

分享 举报

起始港：上海	目的港：纽约	承运人：COSCO	预计船期：三/六
是否中转：否	航程：电询	箱型：GP普柜	限重(吨)：20'－ 电讯 40'－
提单要求：MB/L	舱位情况：正常	适用品名：电询	最低箱量：0
付款方式：预付	信息有效期：2019/11/8		

咨询电话：15000217076 刘苇 QQ交谈

如果QQ或MSN无人答复，请立即与公司客服 "在线询价 选优质货代 找信誉物流"

信誉通 企业
国内合作风险保障 会员
第2年

浙江美川国际货运代理有限公司

72分 证书荣誉 2张
(信誉指数) 好评0条|中评0条|差评0条

联系人：刘苇 QQ交谈
联系电话：86-0571-86103690
手机：15000217076
联系地址：余杭区富泰路21号1幢505室

进入公司网站

在线客服

详细描述

上海到纽约 海运费 是由浙江美川国际货运代理有限公司提供！

浙江美川国际货运代理有限公司（ZHEJIANG MUTUAL INTERNATIONAL FREIGH FORWARDING CO.,LTD），系经国家商务部备案审批的一级货运代理有限公司。公司专业从事进出口货物的海运、空运、陆运等国际运输代理业务。迄今已形成了从揽货、订舱、仓储、中转、多式联运、集装箱拼、装、拆箱到报关、报检、保险、咨询等全方面的物流服务体系。

二、关于美国向中国出口聚氯乙烯保险费的说明及有关证据

关于美国向中国出口聚氯乙烯
保险费的说明及有关证据

据申请人了解，从美国运抵中国主要港口的海运保险费主要有：平安险（F.P.A）、水渍险（W.A）和一切险（A.R）。其中平安险是三大险种（平安险、水渍险和一切险）中保险费率最低的险种。根据中国进口货运保险普通货物费率表（海运），从美国运抵中国主要港口的海运保险费率为0.15%。

进口货运保险普通货物费率表

添加新百科 获积分奖励【我来添加】

（一）所有进口货物均按本费率表计算保险费，但如在指明货物费率表中的货物，承保一切险时还须加上指明货物费率计算保险费。有特殊规定的按特殊规定计收。

（二）各种散装货物以及化肥、糖、粮谷、木材、油（包括油料）、活牲畜、新鲜果菜，其保险责任均至卸货港口仓库或场地时终止。上述货物如需从港口转运到内地还需按转运内地费率加费的规定加费。

（三）本表系按每百元计算。

(1)海运

地区	平安险 F．P．A	水渍险 W．A	一切险 A．R．
台湾、香港、澳门、南朝鲜、日本	0．08	0.12	0.25
大洋洲及亚洲国家和地区	0．10	0.15	0.35
加拿大、美国、欧洲	0．15	0.20	0.45
非洲及中南美洲	0．20	0.25	0.50

(2)陆运

地区	陆运	陆运一切险
香港、澳门	0．07	0．20
其它地区	0．15	0．40

(3)空运

地区	航空运输险	航空一切险
香港、澳门、台湾、日本、南朝鲜	0．10	0．25
其他世界各地	0．20	0．45

(4)邮包

目的地	邮包险	邮包一切险
香港、澳门、台湾、日本、南朝鲜	0．10	0．25
其他世界各地	0．20	0．45

24小时新闻排行

1．马士基、德迅等60家行业巨头成...
2．BDI创9年新高 有港口"船排...
3．韩媒：LNG船订单增加将提升韩...
4．零排放联盟承诺2030年前实现...
5．安徽东方造船将重组成为新能源船...
6．147船大单!这家俄罗斯机构要...
7．马士基将与JDA合作，升级数字...
8．我国快递业务量稳居全球第一 每...
9．亚马逊在德国招募司机 计划再建...
10．奥地利邮政发起"城市枢纽"计划...

在线视频

WIFFA宣传片
类别:

辽宁卫视《辽宁新闻联播》报道第六届海峰
类别:媒体报道

大连财经频道《大连经济报道》关注货代平
类别:

大连电视台《大连新闻》报道第六届海峰会
类别:媒体报道

航贸百科

危险货物标志 危险化学品标志

国际危规: 查询

客户投诉 电话：0411-82804681 刘先生 邮箱：tousu-7700@qq.com
客服电话：86-411-82804681 82817405

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网站备案号：辽B-2-4-20080120-8

附件九

美国聚氯乙烯成本及价格非市场状况的相关证据

一、《美国化石燃料补贴自述报告》

二、英国海外发展研究所（ODI）和国际石油变革组织（OCI）关于美国补贴石油、天然气和煤炭生产的报告

三、美国能源信息署（EIA）《2016年财政年度联邦政府对能源的直接财政干预和补贴报告》

四、OECD化石燃料补贴数据库—2016年、2017年美国各州向石油和天然气产业提供的补贴

五、美国能源信息署（EIA）《2019年能源展望》

六、联合国环境规划署《全球绿色新政——匹兹堡G20峰会更新》（2009年9月）

一、《美国化石燃料补贴自述报告》

United States Self-Review of Fossil Fuel Subsidies
Submitted December 2015 to the G-20 Peer Reviewers

Table of Contents

Part 1: Producer Subsidies

There are a number of provisions, described below, available in the United States to producers of fossil fuels. In total, the United States government has identified sixteen Federal fossil fuel production tax provisions, as shown below. This list includes eleven Federal tax provisions previously identified in the United States' progress reports to the G-20, and 5 additional provisions identified during the United States' self-review for the United States - China G-20 peer review process.

1. Expensing of Intangible Drilling Costs

Annual Cost: $1,629 million[1] (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Oil, natural gas

Description of Subsidy: Taxpayers may elect to deduct intangible drilling costs (IDCs) in the year the cost is paid or incurred with respect to the development of an oil or natural gas property located in the United States. For an integrated oil company that has elected to expense IDCs, 30 percent of the IDCs on productive wells must be capitalized and amortized over a 60-month period.

Analysis of Subsidy: The expensing, rather than capitalization, of IDCs provides a tax preference to the oil and natural gas industry. Requiring capitalization of IDCs would place the oil and natural gas industry on a cost recovery system similar to that employed by other industries and reduce economic distortions. This provision, like other oil and natural gas preferences the Administration proposes to repeal, distorts markets by encouraging more investment in the oil and natural gas industry than would occur under a neutral tax system. This market distortion is detrimental to long-term energy security and is also inconsistent with the Administration's policy of supporting a clean energy economy, reducing our reliance on oil, and cutting greenhouse gas emissions. Moreover, the tax subsidy for oil and natural gas must ultimately be financed with taxes that result in underinvestment in other, potentially more productive, areas of the economy.

Proposal for Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal expensing of intangible drilling costs and 60-month amortization of capitalized intangible drilling costs. Intangible drilling costs would be capitalized as depreciable or depletable property, depending on the nature of the cost incurred, in accordance with the generally

[1] For all items (except for publicly traded partnerships) for which the United States Treasury is the responsible agency, the Treasury calculates the annual cost by projecting the average annual difference in Federal tax revenues between current law and the proposed revision over fiscal years 2016 through 2025, assuming the subsidy is removed effective after 31 December 2015. For publicly traded partnerships, the projection is based on the assumption that the change in tax treatment is effective after 31 December 2020, and the annual cost measures the average annual difference in Federal tax revenues over fiscal years 2021 through 2025.

applicable rules. The proposal would be effective for costs paid or incurred after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

2. Percentage Depletion for Oil and Natural Gas Wells

Annual Cost: $966 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Oil, natural gas

Description of Subsidy: Depletion is available to any person having an economic interest in a producing oil and natural gas property. There are generally two types of depletion – cost and percentage depletion. Cost depletion is limited to the taxpayer's basis in the property, whereas percentage depletion is not limited by the basis, but is subject to other limitations.

Percentage depletion for producing oil and natural gas property (15 percent rate) is available only to independent producers and royalty owners and is limited to average production of 1,000 barrels of oil per day or its natural gas equivalent. The percentage depletion deduction is further generally limited to the lesser of 65 percent of the taxable income before the depletion allowance or 100 percent of the taxable income from the property before the depletion allowance.

Analysis of Subsidy: Percentage depletion effectively provides a lower rate of tax with respect to a favored source of income relative to cost depletion. Cost depletion computed by reference to the taxpayer's basis in the property would place oil and natural gas producers on a cost recovery system similar to that employed by other industries and reduce economic distortions. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal for Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal percentage depletion with respect to oil and natural gas wells. Taxpayers would be permitted to claim cost depletion on their adjusted basis, if any, in oil and natural gas wells. The proposal would be effective for taxable years beginning after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

3. Domestic Manufacturing Deduction for Fossil Fuels

Annual Cost: $1,049 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Oil, natural gas, coal, lignite, oil shale

Description of Subsidy: A deduction is allowed with respect to income attributable to domestic manufacturing and production activities. For taxable years beginning after 2009, the manufacturing deduction is generally equal to nine percent of the lesser of qualified production activities income for the taxable year or taxable income for the taxable year, limited to 50 percent of the W-2 wages of the taxpayer for the taxable year. The deduction for income from oil and natural gas production activities is computed at a six-percent rate.

This deduction is widely available and not targeted at fossil fuel industries.

Analysis of Subsidy: The manufacturing deduction, which is available to all taxpayers that generate qualified production activities income, effectively provides a lower rate of tax for income from certain activities, including the production of fossil fuels. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would exclude from the definition of domestic production all gross receipts derived from the sale, exchange or other disposition of oil, natural gas or a primary product thereof and of coal, other hard mineral fossil fuels, or a primary product thereof for taxable years beginning after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

4. Two Year Amortization Period for Geological & Geophysical Expenditures

Annual Cost: $288 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Oil, natural gas

Description of Subsidy: Geological and geophysical expenditures incurred by independent producers in connection with domestic oil and natural gas exploration may be amortized over two years. For integrated oil companies, these costs must be amortized over seven years.

Analysis of Subsidy: The accelerated amortization of geological and geophysical expenditures incurred by independent producers provides a tax preference to the oil and natural gas industry. Increasing the amortization period for geological and geophysical expenditures incurred by

independent oil and natural gas producers from two years to seven years would provide a more accurate reflection of their income and more consistent tax treatment for all oil and natural gas producers. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would increase the amortization period from two to seven years for geological and geophysical expenditures incurred by independent producers in connection with all oil and natural gas exploration in the United States. Seven year amortization would apply even if the property is abandoned, and any remaining basis of the abandoned property would be recovered over the remainder of the seven year period. The proposal would be effective for amounts paid or incurred after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

5. Percentage Depletion for Hard Mineral Fossil Fuels

Annual Cost: $209 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Coal, lignite, oil shale

Description of Subsidy: Percentage depletion is available for coal and lignite (10 percent rate) and oil shale (15 percent rate). The percentage depletion deduction is generally subject to the alternative minimum tax at a 20 percent rate to the extent it exceeds the adjusted basis of the property. The deduction may not exceed 50 percent of the net income from the mineral property in any year.

Analysis of Subsidy: Percentage depletion, rather than cost depletion, effectively provides a lower rate of tax with respect to a favored source of income. Cost depletion computed by reference to the taxpayer's basis in the property would place these fossil fuel industries on a cost recovery system similar to that employed by other industries and reduce economic distortions. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal percentage depletion with respect to coal and other hard mineral fossil fuels. The other hard mineral fossil fuels for which no percentage depletion would be allowed include lignite and oil shale. Taxpayers would be permitted to claim cost depletion on their adjusted basis, if any, in coal and other hard mineral fossil fuel properties. The proposal would be effective for taxable years beginning after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

6. Expensing of Exploration and Development Costs for Hard Mineral Fuels

Annual Cost: $53 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Coal, lignite, oil shale

Description of Subsidy: Mining companies may elect to deduct 70 percent of domestic exploration and development costs. The 30 percent of expenses that cannot be deducted must be capitalized and amortized over a 60-month period. Taxpayers may also elect to capitalize mine exploration and development expenses and amortize them over a 10-year period. If this election is made, the expenses will not be tax preference items under the alternative minimum tax.

Analysis of Subsidy: The expensing of exploration and development costs relating to coal and other hard mineral fossil fuels provides a tax preference to these fossil fuel industries. Capitalization of exploration and development costs relating to coal and other hard mineral fossil fuels would place taxpayers in that industry on a cost recovery system similar to that employed by other industries and reduce economic distortions. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal expensing, 60-month amortization, and 10 year amortization of exploration and development costs relating to coal and other hard mineral fossil fuels. The costs would be capitalized as depreciable or depletable property, depending on the nature of the cost incurred, in accordance with generally applicable rules. The other hard mineral fossil fuels for which expensing, 60 month amortization, and 10 year amortization would not be allowed include lignite and oil shale. The proposal would be effective for costs paid or incurred after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

7. Capital Gains Treatment for Royalties of Coal

Annual Cost: $31 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Coal, lignite

Description of Subsidy: Royalties received on the disposition of coal generally qualify for treatment as long-term capital gains. This treatment does not apply unless the taxpayer has been the owner of the mineral in place for at least one year before it is mined. The treatment also does not apply to income realized as a co-adventurer, partner, or principal in the mining of the mineral or to certain related party transactions.

Analysis of Subsidy: The capital gains treatment of coal and lignite royalties provides a tax preference to these fossil fuel industries. Treating royalties as ordinary income would place taxpayers in that industry on a cost recovery system similar to that employed by other industries and reduce economic distortions. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal capital gains treatment of coal and lignite royalties and would tax those royalties as ordinary income for amounts realized in taxable years beginning after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

8. Deduction for Tertiary Injectants

Annual Cost: $10 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Oil

Description of Subsidy: Taxpayers engaged in petroleum extraction activities may generally deduct qualified tertiary injectant expenses incurred while applying a tertiary recovery method to increase the recovery of crude oil.

Analysis of Subsidy: The deduction, rather than capitalization, of tertiary injectants provides a tax preference to the oil and natural gas industries. Capitalization of tertiary injectants would place the oil and natural gas industry on a cost recovery system similar to that employed by other industries and reduces economic distortions. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal the deduction for qualified tertiary injectant expenses for amounts paid or incurred after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

9. Exception to Passive Loss Limitation for Working Interests in Oil and Natural Gas Properties

Annual Cost: $19 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Oil, natural gas

Description of Subsidy: Under normal rules, passive losses that remain after being netted against passive income generally can only be carried forward to offset passive income in future years. The exception permits losses from working interests in oil and gas properties to offset active income. The exception is only available if the working interest is owned in a way that does not limit the taxpayer's liability.

Analysis of Subsidy: The special tax treatment of working interests in oil and natural gas properties provides a tax preference to the oil and natural gas industries. Eliminating the working interest exception would subject oil and natural gas properties to the same limitations as other activities and reduce economic distortions. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal the exception from the passive loss rules for working interests in oil and natural gas properties for taxable years beginning after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

10. Enhanced Oil Recovery (EOR) Credit

Annual Cost: $0 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Oil

Description of Subsidy: A 15 percent credit is provided for expenses associated with an EOR project in the United States. An EOR project is a project that involves the use of one or more tertiary recovery methods to significantly increase the amount of recoverable crude oil.

The credit is phased out when the reference price of oil exceeds a statutory amount indexed to inflation.

Analysis of Subsidy: The credit provides a tax preference to the oil and natural gas industries. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal the tax credit for enhanced oil recovery projects beginning after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

11. Marginal Wells Credit

Annual Cost: $0 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Oil, natural gas

Description of Subsidy: A production tax credit is provided for marginal wells or wells that have an average daily production of not more than 3 barrels per day.

The credit is phased out when the reference price of oil or gas exceeds a statutory amount indexed to inflation.

Analysis of Subsidy: The credit provides a tax preference to the oil and natural gas industries. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal the production tax credit for oil and natural gas from marginal wells for production in taxable years beginning after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

12. Corporate Income Tax Exemption for Fossil Fuel Publicly Traded Partnerships

Annual Cost: $342 million (FY2016 Mid-Session Review)

Fossil Fuel Targeted: Oil, gas, coal

Description of Subsidy: Publicly traded partnerships are generally subject to the corporate income tax. Partnerships that derive at least 90 percent of their gross income from depletable natural resources, real estate, or commodities are exempt from the corporate income tax. Instead they are taxed as partnerships. They pass through all income, gains, losses, deductions, and credits to their partners, with the partners then being liable for income tax (or benefitting from the losses) on their distributive shares.

Analysis of Subsidy: The credit provides a tax preference to the oil and natural gas industries. See expensing of intangible drilling costs for further analysis of the effects of fossil fuel tax preferences.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would repeal the exemption from the corporate income tax for publicly traded partnerships with qualifying income and gains from activities relating to fossil fuels. Such publicly traded partnerships would be taxed as C corporations for taxable years beginning after December 31, 2020.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

13. Excise Tax Exemption for Crude Oil derived from Tar Sands

Annual cost: $52 million (FY2016 Budget)

Fossil Fuel Targeted: Crude oil derived from bitumen and kerogen-rich rock (tar sands)

Description of subsidy: An excise tax is imposed on: (1) crude oil received at a U.S. refinery; (2) imported petroleum products (including crude oil) entered into the United States for consumption, use, or warehousing; and (3) any domestically produced crude oil that is used (other than on the premises where produced for extracting oil or natural gas) in or exported from the United States if, before such use or exportation, no taxes were imposed on the crude oil. The tax is eight cents per barrel for periods before January 1, 2017, and nine cents per barrel for periods after December 31, 2016. Crudes such as those that are produced from bituminous deposits as well as kerogen-rich rock are not treated as crude oil or petroleum products for purposes of the tax. The tax is deposited in the Oil Spill Liability Trust Fund to pay costs associated with oil removal and damages resulting from oil spills, as well as to provide annual funding to certain agencies for a wide range of oil pollution prevention and response programs, including research and development.

Analysis of Subsidy: The credit provides a tax preference to crude oil derived from tar sands.

Proposal of Elimination: The Administration's Fiscal Year 2016 Budget proposal would extend the excise tax to crudes such as those produced from bituminous deposits as well as kerogen-rich rock for taxable years beginning after December 31, 2015.

Implementation of Elimination: The United States Congress must pass enabling legislation for this proposal to become law.

Responsible Agency: United States Department of the Treasury.

14. Royalty-Exempt Beneficial Use of Fuels

Annual cost: $39 million estimated annual average lost royalty value.[2]

Fossil Fuel Targeted: Primarily gas, potentially also oil

Description of subsidy: Onshore and offshore oil and gas companies may use hydrocarbons for "beneficial purposes" on the lease without paying Federal royalties. These purposes include use as fuel for drilling rig engines, enhanced recovery, and for lifting, heating, or compressing oil and natural gas.

Analysis of Subsidy: The United States public foregoes royalty payments on beneficial use volumes.

Proposal of Elimination: The Bureau of Land Management (BLM) is preparing a Proposed Rule to update the permitting of beneficial use of oil and gas at onshore facilities; this rule is expected to result in beneficial use being applied in fewer situations. Similar updates could be developed for offshore facilities.

Implementation of Elimination: The proposed rule is anticipated to be published in early 2016, with the final rule scheduled for publication in May 2016. The rulemaking is a high priority for BLM.

Responsible Agency: United States Department of the Interior.

15. Royalty-Free Flaring and Venting of Natural Gas

Annual cost: $70 million estimated annual average lost royalty value.

[2] The estimates for Royalty-Exempt Beneficial Use of Fuels and Royalty-Free Flaring and Venting of Natural Gas were calculated by multiplying natural gas data from ONRR (gas consumed for beneficial purposes or approved by BLM or BSEE to be flared or vented as unavoidably lost) by an average royalty paid per thousand cubic feet (mcf) of gas extracted in individual states for each sales year over 2006-13. The average annual royalty paid per mcf was calculated using ONRR's sales volume and royalties paid data on their statistical website. If royalties were charged on these volumes operators of oil and gas wells would have an incentive to reduce the volumes vented and/or flared and, therefore, the values presented here are upper-bound estimates.

Fossil Fuel Targeted: Gas

Description of subsidy: For onshore Federal oil and gas extraction activities, oil and gas companies may vent (release to the atmosphere) or flare (burn) natural gas under a variety of situations, including tests, emergencies, and when it is uneconomical to get the gas to market (for instance due to a lack of infrastructure for storage and transport). Oil and gas companies do not pay Federal royalties on gas that is legally vented or flared. Absent emergencies or special operational considerations, in concept, all natural gas extracted should bear royalties regardless of whether it is sold or vented/flared. For offshore Federal oil and gas extraction activities, the Bureau of Safety and Environmental Enforcement (BSEE) regulations already require that facilities processing more than an average of 2,000 barrels of oil per day must install flare/vent meters. BSEE regulations also require that requests to approve flaring or venting cannot be justified on the basis of the avoidance of lost revenue (i.e. there is no allowance of offshore venting/flaring based on economic grounds).

Analysis of Subsidy: The United States public foregoes royalty payments on vented and flared volumes.

Proposal of Elimination: BLM is preparing a Proposed Rule addressing venting and flaring to establish standards to limit the waste of vented and flared on-shore gas, to minimize the amount of venting and flaring that takes place on oil and gas production facilities on Federal and Indian lands, and to establish standards for determining avoidable versus unavoidable losses.

Implementation of Elimination: The proposed rule is anticipated to be published in early 2016, with the final rule scheduled for publication in May 2016. The rulemaking is a high priority for BLM.

Responsible Agency: United States Department of the Interior.

16. Liability Cap on Natural Resource Damages

Annual cost: Not estimated. To-date there have been no spills for which the liability cap provision has lowered a responsible party's liability for a specific spill.

Fossil Fuel Targeted: Primarily oil, potentially also gas

Description of subsidy: The Oil Pollution Act of 1990 (OPA) requires responsible parties to pay oil-spill cleanup costs, with a $75-million cap on payouts for private economic and public natural-resource claims (exceptions to the cap include gross negligence). To-date no spill apart from the Deepwater Horizon has had damages large enough to exceed the cap, so this provision has not been invoked. In the case of Deepwater Horizon, the courts made a finding of gross negligence on the part of the operator. One of the provisions of the cap is that it shall not apply for damages caused by gross negligence. So even in the case of Deepwater Horizon, the cap did not apply.

Analysis of Subsidy: Damages attributable to an oil company in excess of the cap would be borne by the United States public.

Proposal of Elimination: The liability cap is set by statute and may only be adjusted to address significant increases in the Consumer Price Index (CPI). The Bureau of Ocean Energy Management (BOEM) is authorized to increase the cap to keep pace with inflation. In the future, BOEM will adjust the cap every three years to account for inflation.

Implementation of Elimination: On December 11, 2014, the Bureau of Ocean Energy Management (BOEM) administratively increased the limit of liability for oil-spill related damages from $75 million to approximately $134 million for offshore oil and gas facilities. This increase is consistent with recommendations to increase the liability cap from the National Commission on the BP Deepwater Horizon Oil Spill and other studies, and represents the maximum increase allowable under the Oil Pollution Act of 1990. The increase applies to facilities handling oil and gas in Federal and State waters seaward of the coastline. The rule also contains a mechanism to regularly update the limit of liability cap in the future to reflect changes in inflation over time based on the CPI.

Responsible Agency: United States Department of the Interior.

Part 2: Consumer Subsidies

There is one consumption subsidy that is funded by the Federal government in the United States. It is targeted at low-income households, and benefits are typically dispersed as a lump sum credit on a household's utility bill. Because the program is a targeted transfer that helps low-income households obtain essential energy services and does not encourage wasteful consumption, this program is not considered inefficient.

1. Low-Income Home Energy Assistance Program (LIHEAP)

Annual Cost: $3,400 million in fiscal year 2016

Description of Subsidy: A discretionary block grant awarded to States, territories, and tribes and tribal organizations to provide home heating and cooling energy assistance to low-income households. Grantees may use a portion of their LIHEAP funds for low-cost residential weatherization services and for program administration. Federal guidelines limit eligibility to households with incomes up to 150% of poverty or 60% of State median income. In FY 2012, the average LIHEAP heating benefit (heating and winter crisis benefits combined) was $587 representing 63.7% of average home heating expenditures for LIHEAP households.

Analysis of Subsidy: LIHEAP assistance is targeted to vulnerable households (those with elderly, disabled or young children) and to the poorest (those with the highest energy burdens relative to their income). These households are targeted as they may face serious health and safety risks if they do not have adequate heating and cooling in their homes. In FY 2012, 32% of LIHEAP households that received heating assistance had an elderly member, 35% included a disabled member, and 21% had a child under 5 years old. The weighted average energy burden among LIHEAP heating recipient households was 12%, compared to 9% among all low-income households.

Leveraged resources: LIHEAP grants to state, tribes, and territories also leverages other energy related resources, such as discounted utility rates, weatherization assistance, telephone discounts, and other private and public resources. During Fiscal Year 2010, these grantees leveraged a total of $2.996 billion from their private and public partners.

Proposal for Elimination: Authorization for this program expired at the end of 2007, but Congress has continued to provide annual appropriations. The Administration does not propose eliminating this program, which is targeted to low-income households.

Responsible Agency: United States Department of Health and Human Services (HHS).

二、英国海外发展研究所（ODI）和国际石油变革组织（OCI）关于美国补贴石油、天然气和煤炭生产的报告

G20 subsidies to oil, gas and coal production: United States

Alex Doukas

- Argentina
- Australia
- Brazil
- Canada
- China
- France
- Germany
- India
- Indonesia
- Italy
- Japan
- Korea (Republic of)
- Mexico
- Russia
- Saudi Arabia
- South Africa
- Turkey
- United Kingdom
- ▶ United States

This country study is a background paper for the report **Empty promises: G20 subsidies to oil, gas and coal production** by Oil Change International (OCI) and the Overseas Development Institute (ODI). It builds on research completed for an earlier report **The fossil fuel bailout: G20 subsidies to oil, gas and coal exploration**, published in 2014.

For the purposes of this country study, production subsidies for fossil fuels include: national subsidies, investment by state-owned enterprises, and public finance. **A brief outline of the methodology can be found in this country summary.** The full report provides a more detailed discussion of the methodology used for the country studies and sets out the technical and transparency issues linked to the identification of G20 subsidies to oil, gas and coal production.

The authors welcome feedback on both this country study and the full report to improve the accuracy and transparency of information on G20 government support to fossil fuel production.

A Data Sheet with data sources and further information for the United States' production subsidies is available at:
http://www.odi.org/publications/10086-g20-subsidies-oil-gas-coal-production-united-states

priceofoil.org
odi.org

Country Study
November 2015

Background

Over the past several years, fossil fuel production has sharply increased in the United States. While coal production has declined slightly, oil and gas exploration and production continue to expand rapidly, with natural gas production increasing by 22% and oil production increasing by 59% between 2010 and 2014 (EIA, 2015b). Production and exploration growth in the US have been driven by horizontal drilling and hydraulic fracturing (fracking) technology, which enabled the development of previously unreachable reserves of oil and gas from shale and tight formations. Producer subsidies have also reduced risk and boosted returns in the US, helping to drive the supply growth that has made the US the world's largest producer of both oil and natural gas, ahead of Saudi Arabia and Russia (EIA, 2015b, 2015c). In 2014, the US produced more oil than Iran, China and Canada combined.

US President Barack Obama has repeatedly pledged to tackle climate change and eliminate US domestic and overseas subsidies for fossil fuels, but he has met resistance in the US Congress, and the administration's domestic energy strategy remains focused on an 'all-of-the-above' approach, which supports the expansion of fossil fuel production (The White House, 2015).

While upstream oil, gas and coal production continues apace, downstream production of electricity from fossil fuels is undergoing a major shift in the US, with natural gas (and to a lesser degree, renewable energy) crowding out coal, and with dozens of coal-fired power plants being shuttered due to local and national advocacy efforts (Grunwald, 2015). US electricity sector emissions in 2015 are expected to be more than 15% below 2005 levels, and in 2015 alone, analysts expect coal plant retirements amounting to roughly 7% of current US electricity generation (BNEF, 2015).

Recent action by the US Environmental Protection Agency in the form of the 'Clean Power Plan' rules will have further implications for the electricity sector, with the aim of reducing CO_2 emissions from electricity production to 32% below 2005 levels by 2030.

Despite this trend of decline in coal-fired power production, government support for coal mining and coal-fired power continues, as does support for oil and gas production. These support measures are described in detail below.

National subsidies

Annually, US federal and state governments give away $20.5 billion in subsidies for oil, coal and gas production (Table 1 lists the top five subsidies by amount, as well as total US subsidies disaggregated by industry). The analysis identified an annual average of $17.2 billion in subsidies for fossil fuel producers at the federal level, and $3.3 billion at the state level. Only a handful of the largest fossil fuel-producing states were assessed as part of this analysis.

The federal subsidies to fossil fuel producers represent an increase of 35% over levels when President Obama took office in 2009, in spite of calls to remove several major subsidies in every budget that the Obama administration has sent to Congress. This uptick in subsidies reflects the substantial increase in oil and gas producing activities in the US during that time.

The vast majority of US national and state subsidies, by both volume and number of subsidies, come in the form of tax breaks and royalty relief, rather than direct spending. Tax and royalty exemptions for oil and gas producers are among the largest federal subsidies for fossil fuel production in the United States.

Among the largest of the quantifiable subsidies to US oil and gas producers are corporate tax exemptions for master limited partnerships (MLPs), which stood at $3.9 billion when estimated in 2012 (Koplow, 2013). MLPs are corporate structures that are able to avoid corporate-level income taxes entirely, and which can distribute cash to owners on a tax-deferred basis. Oil and gas producers dominate MLPs, with 77% of MLPs by market capitalisation associated with fossil fuels. Fossil fuel MLPs have grown from a market capitalisation of $325 billion in 2013 to $532 billion as of May 2015 (Koplow, 2015), although recent declines in oil and gas prices may dampen the tax benefits (and thus associated subsidy) of MLPs for the time being.

Another large tax break for oil and gas producers is the deduction for intangible drilling costs, which our analysis found to be worth $2.6 billion annually. This provides a 100% tax deduction for costs not directly part of the final operating oil or gas well (such as labour costs, survey work and ground clearing), including exploration and development costs (Committee for a Responsible Federal Budget, 2013a). Similarly, the percentage depletion allowance is assessed as the excess of percentage over cost depletion for oil and gas producers. This measure, estimated annually to cost $1 billion for oil and gas, and a further $200 million for coal, allows independent fossil fuel producers to deduct 14% to 15% of large investment costs, including for exploration, from income taxes. One more accounting practice, the 'last-in, first-out' accounting practices employed by oil and gas companies, is also estimated to cost taxpayers more than $1 billion annually. This accounting method allows a company to report the value of every good sold as that of the most recent one added to its inventory (Committee for a Responsible Federal Budget, 2013b). This effectively allows companies with physical inventories to overstate the cost of production, lowering their reported (rather than actual) income.

Lost royalties on offshore drilling represent another large subsidy to oil and gas producers. The 1995 Deep Water Royalty Relief Act provided royalty relief for leases sold between 1996 and 2000, in water 200 metres or deeper (Taxpayers for Common Sense, 2009).

This royalty relief is estimated to represent a loss to taxpayers of $2.1 billion in 2014. In addition, a number of leases issued during the period of the Act did not include price thresholds that would trigger royalties as intended, reportedly due to a clerical error, which could cost taxpayers billions in additional foregone revenues (ibid).

One of the factors that sets the US apart from other G20 countries is the sheer variety of tax loopholes for fossil fuel producers. The deduction for oil spill remediation costs allows companies to deduct the cost of cleaning up and addressing the effects of oil spills as a standard business expense. A recent and notable example occurred in 2010 when BP (formerly British Petroleum) claimed a $9.9 billion tax deduction due to $32.2 billion in reported clean-up costs for the Deepwater Horizon exploration drilling rig blowout and the oil spill in the Gulf of Mexico. The value of this subsidy is projected to be $679 million in 2014, although it is difficult to calculate exact amounts because the value of this tax deduction is considered confidential in most cases, and because the level of subsidy is highly dependent on the number and extent of spills that incur remediation costs, which can vary greatly from year to year.

In 2015, BP settled remaining federal and state claims related to the spill for $20.8 billion. Despite public concern over BP's previous deduction of clean-up costs loopholes that allow for settlements to be deducted as business expenses persist (Morgenson, 2013). The bulk of the $20.8 billion settlement may be tax deductible, with only a $5.5 billion fine that makes up part of the settlement being clearly delineated as a cost that cannot be classified as a business expense. Despite the painful lesson from BP's first conversion of the massive clean-up costs into expenses, it appears this same loophole may remain applicable to BP's new settlement.

Also on the offshore oil and gas front, a number of newer subsidies are benefiting exploration for extreme forms of fossil fuels – those that are difficult to reach and expensive to produce, despite the fact that the vast majority of already-proven fossil fuel reserves can never be burned if there is a chance of avoiding the worst impacts of climate change (see full report, *Empty promises: G20 subsidies to oil, gas and coal production*). For example, in the case of Arctic oil exploration carried out by Shell, the US Coast Guard's top officer recently indicated that substantial Coast Guard resources, including a vessel that was being used to prevent cocaine smuggling (Gardner, 2015), had been diverted to monitor Shell's drilling activities, although this particular subsidy is not quantified here, as it is not within the scope of this analysis.

While the bulk of US subsidies to fossil fuel producers benefit the oil and gas sector, coal producers also benefit from significant subsidies: the Powder River Basin is not designated as a coal-producing region, despite supplying approximately 40% of US coal and being the largest coal reserve in the US. This lack of official designation allows coal companies to lease federal lands at costs lower than would otherwise be the case, amounting to a subsidy of more than $1 billion per year when last calculated in 2012 (Sanzillo, 2012). In addition to underpricing federal leases, as is the case with the application of oil and gas royalties described above, the federal process for assessing royalties on coal also contain loopholes that amount to a significant subsidy. Instead of assessing royalties on the

Table 1: US national subsidies to fossil fuel production, 2013–2014 ($ million except where stated otherwise)

Subsidy	Subsidy type	Targeted energy source	Stage	2013 estimate	2014 estimate	Estimated annual average amount
Corporate tax exemption for master limited partnerships	Tax expenditure	Oil and gas	Production	3,931	3,931	3,931
Intangible drilling oil and gas deduction	Tax expenditure	Oil and gas	Production	3,490	1,663	2,577
Lost royalties on offshore drilling (Outer Continental Shelf Deep Water Royalty Relief Act)	Tax expenditure	Oil and gas	Extraction	576	2,120	1,348
Excess of percentage over cost depletion	Tax expenditure	Oil and gas	Extraction	1,100	1,000	1,050
Powder River Basin not designated as a coal-producing region	Tax expenditure	Coal	Extraction	1,047	1,047	1,047
Other national and state subsidies (see Data Sheet)				10,561	10,944	10,538
Total national subsidies ($ m)						20,491

Sources and additional data are available in the Data Sheets that accompany each Country Study.

ultimate sale price of coal produced on federal lands, the government assesses royalties on the price of the initial sale (Lee-Ashley and Thakar, 2015). This occurs even when a parent company sells coal to one of its own affiliate companies, and the affiliate then re-sells the coal to foreign buyers at a higher price. The impact of this particular subsidy is not included in the total US subsidies due to a lack of available recent estimates, but a 2012 investigation by Reuters estimated that this loophole cost $40 million in tax revenue on coal exports from Wyoming and Montana in 2011 (Rucker, 2012). The US Department of Interior's Bureau of Land Management launched a high-level review, in part to reassess this loophole, in July 2015.

Recent research has found that production subsidies in the Powder River Basin equal nearly $8 per tonne, a total of $2.9 billion per year, and that removal of these subsidies would result in an 8% to 29% reduction in demand for coal from the basin, with associated cumulative reductions of 0.7 to 2.5 $GtCO_2$ to 2035, demonstrating the significant potential climate impact of removing these production subsidies (CTI et al., 2015).

Some of the largest US subsidies for fossil fuel producers are actually state-level tax breaks. An example is the Texas severance tax exemption for natural gas, a subsidy worth $811 million annually. Among major oil, gas and coal-producing states, Texas and Alaska each provide subsidies to producers totalling more than $1 billion annually.

There are also a number of subsidies that are not quantified here, either because numbers are not available or possible to readily estimate, and also because certain types of support may not meet the definition of subsidy. Some other recent state-level developments on subsidies are also out of the scope of being quantified for the purposes of this assessment, but they present illustrations of how US subsidies for fossil fuel producers are playing out during a rapid decline in global oil prices. For example, in Alaska, an oil and gas production tax is expected to cost taxpayers more than it brings in for fiscal years 2015 and 2016 (Box 10 in the full report, *Empty promises: G20 subsidies to oil, gas and coal production*). Despite being designed as a tax to generate revenue for the state, because of the types of tax breaks and credits available to producers, this particular tax is expected to result in a net cost to Alaskans of $442 million. These subsidies are not quantified in the total amount for national subsidies because they are for 2015 and 2016, and this analysis considers the period from 2013 to 2014.

In another example, for the past several years, Pennsylvania has been one of the major gas-producing states in the country, yet has lacked any severance tax on natural gas, representing a huge windfall to producers. However, because this is a standing zero tax rate and not an exemption or deduction, it is not counted as a subsidy here. But it is important to recognise that the list of producer subsidies presented here is not an exhaustive accounting of those subsidies and similar types of government support that benefit producers and represent a loss to treasuries.

State-owned enterprise investment

The US does not have state-owned enterprises (SOEs) engaged in upstream oil, gas and coal production. However, the federal government does own several utilities that produce and sell coal-fired electricity, including the Tennessee Valley Authority and the Western Area Power Administration (which sells power from one coal-fired power plant owned and operated by a collection of federal, state and municipal agencies).

Of these, the largest generator of electricity from fossil fuels is the Tennessee Valley Authority, which operates 11 gigawatts (GW) of coal-fired generating capacity and approximately 9 GW of gas-fired generating capacity (Tennessee Valley Authority, n.d.). It is also worth noting that the Western Area Power Administration's Navajo Generating Station is the third-largest point source of carbon dioxide emissions in the US (EPA, 2015a). Data on investment in fossil fuel production by these federally-owned utilities was not readily available, and is not included in this analysis.

There are also several municipally owned utilities in the US that produce and sell electricity generated in part by coal or natural gas. Although a full analysis of investment by these multiple, relatively small utilities is not within the remit of this study, the largest of these is City Water, Light and Power in Illinois, which operates fossil fuel electricity generating assets with a combined nameplate capacity of 723 MW (City Water, Light and Power, 2015), which produced 2.9 TWh of electricity in their fiscal year ending 2014 (Burns, 2014).

Public finance

Domestic

There was no significant public financing for fossil fuels domestically found from independent US government agencies. The US Department of Agriculture operates the Rural Utilities Service, which provides loans and loan-guarantees at interest rates below those available to investor-owned utilities. The total value of all of these preferential loans and guarantees, as well as federal support to federally owned utilities, was estimated at $30 million for 2013 (EIA, 2015a). There are also some government-backed loan opportunities for small businesses, including those in the energy sector, as well as financing opportunities for R&D.

International

US public finance for overseas fossil fuel projects totalled $7.5 billion in 2013 and 2014 – an annual average of $3.7 billion. It was dominated by financing from the US Export-Import Bank (ExIm), with additional significant amounts from the US portion of ownership in the major multilateral development banks. Bilaterally, the US provides billions of dollars in loans and guarantees each year for overseas oil, gas and coal projects through ExIm and, to a much smaller extent, through the Overseas Private Investment Corporation (OPIC) (Table 2).

Notably, OPIC has instituted measures to limit greenhouse gas emissions from projects that it funds, resulting in a far smaller amount of fossil fuels financed from 2013 to 2014 ($126 million) compared with ExIm, which financed $5.8 billion to fossil fuel projects from 2013 to 2014. Further, the US commitment to stop funding coal power plants overseas except in extreme circumstances has meant lower coal financing in recent years from both ExIm and OPIC. The Obama administration has also sought to apply emissions restrictions to ExIm, an effort that has suffered setbacks as a result of Congressional actions that have deferred or defunded the implementation of ExIm's restrictions on investment in high-emitting infrastructure. At the time of writing, ExIm's Congressional authorisation has lapsed, which means that it is not committing funding to any new investments for the time being.

Other US government agencies, including the Millennium Challenge Corporation, the US Agency for International Development, and the US Trade Development Agency provide public financing for energy projects, but there is not enough publicly available information to determine the amount of financing from these institutions going to fossil fuels, and therefore these agencies were not included in the tallies. The Millennium Challenge Corporation, in particular, 'expects to invest approximately $2 billion to support Power Africa through compacts that improve the quality and reliability of electricity and promote climate-smart measures', and, given Power Africa's emerging focus, a portion of that financing is likely to go to natural gas infrastructure and power plants (MCC, 2015).

The US also contributed an annual average of $743 million to fossil fuel projects in 2013 and 2014 through its shares in the World Bank Group, African Development Bank, Asian Development Bank, Inter-American Development Bank and European Bank for Reconstruction and Development.

Private companies

Private upstream oil and gas companies

US oil and gas production has boomed in recent years, with oil production at nearly 2 billion barrels in 2009 climbing to nearly 3.2 billion barrels by 2014. Natural gas production has risen from 26 trillion cubic feet to nearly 32 trillion cubic feet over the same period (EIA, 2015b, 2015c).

No single player dominates the upstream US oil and gas industry: between 2013 and 2014, 37 oil and gas companies produced an average of at least 150 million

Table 2: US public finance for fossil fuel production, 2013–2014 ($ million except where stated otherwise)

Institution name	Coal mining	Coal-fired power	Upstream oil and gas	Oil and gas pipelines, power plants and refineries	Total fossil fuel finance 2013 & 2014	Annual avg. fossil fuel finance
Domestic						
N/A	-	-	-	-	-	-
Subtotal domestic	-	-	-	-	-	-
International						
Export-Import Bank of the United States	79	-	5,097	682	5,858	2,929
Overseas Private Investment Corporation	-	-	68	58	126	63
Multilateral development banks	2	220	400	863	1,485	743
Subtotal international	81	220	5,565	1,603	7,469	3,735
Totals						
Total public finance ($ m)						3,735

Sources and additional data are available in the Data Sheets that accompany each Country Study.
Note: N/A indicates data was not publicly available at the time of publication.

barrels of oil equivalent (mboe) annually (Table 3). ExxonMobil, ConocoPhillips, Chesapeake, Anandarko and Chevron, all headquartered in the US, were the top five producers by volume of combined oil and gas production. Oil production is more concentrated than gas production, with ConocoPhillips accounting for nearly 6.5% of production and Chevron and ExxonMobil each accounting for nearly 6% of US oil production in 2014.

It is notable that a number of the world's vertically integrated 'supermajor' oil and gas companies that are headquartered in the US are also major players in the US market, across upstream, midstream and downstream oil and gas activities. These companies include ExxonMobil, ConocoPhillips and Chevron.

One of the biggest US subsidies benefiting the upstream oil and gas industry is the intangible drilling oil and gas deduction, described in the section on national subsidies, worth an average of $2.6 billion annually between 2013 and 2014.

Private midstream/downstream oil and gas companies

As of 1 January 2015, approximately 46% of US oil refining capacity was concentrated among five companies, detailed in Table 4 (EIA, 2015d).

The US downstream oil and gas sector receives substantial subsidies. One of the largest of these is the benefit conferred by 'last-in, first-out' (LIFO) accounting, described in the section on national subsidies. This subsidy averaged nearly $1.1 billion between 2013 and 2014.

For the midstream oil and natural gas sector, pipelines also benefit substantially from subsidies in the form of industry-specific favourable tax treatment. Tax exemptions through the MLP structure also benefit many oil and gas pipelines, which benefit from the ability to recover 'phantom' taxes through regulated rates charged to customers (Koplow, 2013). The total of MLP-related subsidy was estimated at $3.9 billion annually between 2013 and 2014, with a portion of that flowing to midstream oil and gas.

Private coal companies

More than 90% of coal production in the US is bituminous and sub-bituminous coal (split roughly evenly between the two), with lignite and anthracite accounting for 7.8% and 0.2% of US coal production in 2013 respectively (EIA, 2015e).

In 2013, for the first time in two decades, total US coal production was below 905 million tonnes. The share of US coal that is exported has remained roughly steady over the past several years, at between 11% and 12% of production (ibid.).

The top four US coal producers are also headquartered in the US (Table 5). The market capitalisation of these companies has declined precipitously in recent years as the prospects for coal in the US diminish: the market capitalisation of these four companies stood at just $1.2 billion in mid-2015, compared to $22 billion in 2010 (*The Economist*, 2015).

Major subsidies to the upstream coal industry include the failure to designate the Powder River Basin as a coal-producing region, costing an average of $1.1 billion per year, as well as direct spending in the form of treasury

Table 3: Top private upstream oil and gas producers in the US, 2013–2014

Company	Headquarter country	Oil production (million barrels in country)		Gas production (billion cubic metres in country)		Sum of operating expenditure & capital expenditure, including exploration expenditure ($ million)		Profitability (from country operations, as measured by free cash flow) ($ million)	
		2013	2014	2013	2014	2013	2014	2013	2014
ExxonMobil	United States	181	186	47	43	13,620	14,340	1,638	1,071
ConocoPhillips	United States	194	205	20	20	10,034	11,381	2,188	1,347
Chesapeake	United States	72	75	38	35	7,935	7,659	-339	81
Anadarko	United States	102	133	29	31	9,145	10,775	-432	-340
Chevron	United States	184	188	15	15	11,900	11,007	1,161	1,895
BP	United Kingdom	139	152	19	19	8,624	8,575	2,170	2,677
Devon Energy	United States	98	123	23	22	7,682	7,497	-1,061	101
EOG Resources	United States	134	173	14	14	8,766	10,533	27	255
BHP Billiton	Australia	69	109	17	18	7,915	7,181	-1,872	1,063
Southwestern Energy	United States	3	12	25	28	3,427	3,791	-796	-296

Source: Rystad Energy, 2015.

contributions to the Black Lung Disability Trust Fund, which averaged $304 million per year.

Private electricity companies (fossil fuel-based)

From the perspective of electricity generation, the US power sector is made up of a mix of publicly owned utilities, investor-owned utilities, non-utility generators, electric cooperatives, and a few federal power agencies. In terms of total generation, investor-owned utilities and non-utility generators (also called independent power producers) are the dominant players. As of 2013, investor-owned utilities and non-utility generators made up a combined 79% of generation in the US, producing roughly equal amounts of electricity (American Public Power Association, 2015). The US generated 4 TWh of electricity in 2014, of which 39% was from coal, 27% from natural gas, 19% from nuclear, 6% from hydropower and 7% from other renewables including wind and solar (EIA, 2015f).

The electricity sector was responsible for 31% of US greenhouse gas emissions in 2013 (EPA, 2015b), more emissions than any other sector of the economy. The US Environmental Protection Agency has released a final 'Clean Power Plan' rule that aims to cut greenhouse gas emissions from existing power plants.

Producers of electricity from fossil fuels benefit from several US subsidies, including a favourable amortisation period for pollution control technologies on coal-fired power plants, estimated to be worth $400 million annually. Likewise, a credit for investment in 'clean coal' facilities also cost an average of $190 million annually over the 2013–2014 period, alongside a carbon dioxide sequestration credit worth an average of $80 million annually.

Table 4: Private companies operating in the US downstream oil and gas sectors

Company	Refinery locations	Capacity (million barrels per day)
Valero	Texas, Tennessee, Louisiana, California, Oklahoma	1.96
ExxonMobil	Texas, Louisiana, Illinois, California, Montana	1.86
Marathon Petroleum	Louisiana, Texas, Kentucky, Illinois, Michigan, Ohio	1.73
Phillips 66	Louisiana, Texas, New Jersey, Oklahoma, California, Washington, Montana	1.61
Motiva	Texas, Louisiana	1.08

Source: EIA (2015d).

Table 5: Top 5 private coal producers by production and profit in the US, 2013–2014

Company	Headquarter country	Coal production (in country) – thousand tonnes, 2013	Percentage of total US coal production, 2013	Profit (from country operations, if possible) (varying metrics)	Countries in which the company operates producing assets (if global profit)
Peabody Energy	United States	166,264	18.6	$814 million (2014 adjusted EBITDA) *	United States, Australia
Arch Coal	United States	118,147	13.2	$280 million (2014 adjusted EBITDA)	United States
Cloud Peak Energy	United States	77,740	8.7	$202 million (2014 adjusted EBITDA)	United States
Alpha Natural Resources	United States	77,053	8.6	$498 million (2014 adjusted EBITDA)	United States
Rio Tinto Group	United Kingdom	56,154	6.3	US coal production not disaggregated in earnings reports	

Source: EIA (2015e).

Notes: EBIDTA refers to earnings before interest, taxes, depreciation, and amortisation.*

Methodology

(for detailed methodology see Chapter 3 of main report)

This report compiles publicly available information on G20 subsidies to oil, gas and coal production across G20 countries in 2013 and 2014. It provides a baseline to track progress on the phase-out of such subsidies as part of a wider global energy transition. It uses the following terms and their definitions.

Production subsidies

Government support for fossil fuel production. For the purpose of this country study, production subsidies include national subsidies, investment by state-owned enterprises (SOEs) (domestic and international) and public finance (domestic and international) specifically for fossil fuel production.

Fossil fuel production

Production in the oil, gas and coal sectors. This includes access, exploration and appraisal, development, extraction, preparation, transport, plant construction and operation, distribution and decommissioning. Although subsidies for the consumption of fossil fuels can support their production, this report excludes such subsidies as well as subsidies for the consumption of fossil fuel-based electricity.

National subsidies

Direct spending, tax and duty exemptions and other mechanisms (such as forms of capacity markets) provided by national and sub-national governments to support fossil fuel production. Normally, the value assigned for a national subsidy is the number provided by the government's own sources, by the OECD, or by an independent research institution.

State-owned enterprise (SOE) investment

A SOE is a legal entity created by a government to undertake commercial activities on its behalf. SOEs can be wholly or partially owned by governments.

It is difficult to identify the specific component of SOE investment that constitutes a subsidy, given the limited publicly available information on government transfers to SOEs (and vice-versa), and on the distribution of investment within their vertically integrated structures. Therefore, this report provides data on total investment by SOEs in fossil fuel production (where this information is available from the company), which are presented separately from national subsidies.

For the purpose of this report, 100% of the support provided to fossil fuel production through domestic and international investment by an SOE is considered when a government holds >50% of the shares.

Public finance

Public finance includes the provision of grants, equity, loans, guarantees and insurance by majority government-owned financial institutions for domestic and international fossil fuel production. Public finance is provided through institutions such as national and multilateral development banks, export credit agencies and domestic banks that are majority state-owned.

The transparency of investment data for public finance institutions varies. Assessing the portion of total financing that constitutes a subsidy requires detailed information on the financing terms, the portion of finance that is based directly on public resources (rather than raised on capital markets) or that depends on the institutions' government-linked credit rating. Few of the institutions assessed allow public access to this information. Therefore, we report the total value of public finance from majority government-owned financial institutions for fossil fuel production separately from 'national subsidy' estimates.

For the purpose of this report, 100% of the support provided to fossil fuel production through domestic and international financing is considered when a government holds >50% of the shares in the bank or financial institution.

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Overview and Key Findings

Overview

This report—an update based on Fiscal Year (FY) 2016 data and earlier EIA reports on direct federal financial interventions and subsidies in energy markets—continues a series of U.S. Energy Information Administration (EIA) reports[1] that began in response to congressional requests. More recently, the Secretary of Energy requested updated information as part of the U.S. Department of Energy's (DOE) Grid Resiliency Study.[2]

The scope of this EIA report is limited to direct federal financial interventions and subsidies, i.e., subsidies provided by the federal government, subsidies that provide a financial benefit with an identifiable federal budget impact, and subsidies that are specifically targeted at energy technologies and markets. State and local programs—although significant in a number of cases—have been excluded from EIA's reporting. As a result, this report does not encompass all subsidies that affect energy markets and should therefore be viewed in context and in conjunction with related information from other sources (see discussion of *Other energy subsidy studies* in the *Analytic Approach* section).

Consistent with EIA's independent role and mission, this report focuses on providing information to inform discussion rather than drawing conclusions or discussing policy issues related to energy subsidies. By using a comprehensive data acquisition and analysis process, EIA estimates how federal financial actions are distributed among a defined set of categories comprising the U.S. energy system.[3] EIA has made only limited observations of the scale, trends, and relationships within the data and the report tables.

Table 1 summarizes total within-scope energy subsidies and selected U.S. energy system indicators.

Subsidy types

Federal financial interventions and subsidies included in this report fall into four categories:

- **Tax expenditure:** the amount of tax benefits or preferences received by taxpayers and forgone by the federal government
- **Direct expenditures** to recipients (i.e., both producers and consumers): the amount of grants, loans, or other financial assistance awards made directly to recipients
- **Research and development** (R&D) support: the amount of grants, loans, or other financial assistance awards made for R&D

[1] The first EIA study was undertaken at the request of Congress in Fiscal Year (FY) 1992, pursuant to language appearing in the House Appropriations Committee's Report on the U.S. Energy Information Administration FY 1992 appropriations.
[2] U.S. Department of Energy, Staff Report to the Secretary on Electricity Markets and Reliability, Washington, DC, August 2017.
[3] EIA has requested further detailed data from the Internal Revenue Service as it pertains to the distribution of energy-related tax benefits.

- **DOE loan guarantees:** financial support authorized to be provided by DOE for innovative clean energy technologies that are typically unable to obtain conventional private financing because of their high technology risks.[4]

Table 1. Total energy subsidies and support and selected energy indicators, FY 2010, FY 2013, and FY 2016

trillion British thermal units or as specified

Indicators	FY 2010	FY 2013	FY 2016
Total Energy Subsidies and Support (million 2016 dollars)	**37,992**	**29,335**	**14,983**
U.S. Energy Consumption	**96,850**	**98,655**	**96,788**
U.S. Energy Production	**73,695**	**81,151**	**84,833**
U.S. Natural Gas (dry and liquids)	24,105	28,220	32,652
U.S. Crude Oil	11,512	15,370	18,797
U.S. Coal	21,657	20,223	14,807
U.S. Nuclear	8,318	8,099	8,352
U.S. Biomass	4,358	4,680	4,963
U.S. Hydroelectric	2,588	2,582	2,482
U.S. Wind	863	1,557	2,038
U.S. Solar	88	205	533
U.S. Geothermal	207	215	209

Note: Totals may not equal the sum of components due to independent rounding.

Sources: **Consumption:** EIA, *Monthly Energy Review*, February 2018, Table 1.3. **Production:** EIA, *Monthly Energy Review*, February 2018, Table 1.2. **Tax expenditure estimates**: Office of Management and Budget, *Analytical Perspectives, Budget of the U.S. Government*, FY 2012, 2015, and 2018. Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2010-2014*, JCS-3-10 (Washington, DC, December 2010), Table 1, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2012-2017*, JCS-1-13 (Washington, DC, February 2013), Table 1, and Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2016-2020*, JCX-3-17 (Washington, DC, January 2017), Table 1. **Federal direct expenditure and R&D expenditure subsidies**: DOE: U.S. Department of Energy, Office of the Chief Financial Officer, *Base Financial Data*, FY 2010, FY 2013, and FY 2016; FY 2010 and FY 2013: U.S. General Services Administration, USASpending.gov - Government spending at your fingertips, https://www.usaspending.gov/, accessed October 22, 2014; FY 2016: U.S. Department of the Treasury, USASpending.gov, https://www.usaspending.gov/, accessed November 16, 2017. **Loan guarantee programs credit subsidy**: Computed from data from U.S. Department of Energy, Loan Program Office, https://www.energy.gov/lpo/portfolio/portfolio-projects, accessed January 20, 2015 and EIA, *Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2010*, July 2011, Table 29.

[4] Section 1703 of Title XVII of the Energy Policy Act of 2005 authorizes the U.S. Department of Energy to support innovative clean energy technologies that are typically unable to obtain conventional private financing due to high technology risks. In addition, the technologies must avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases. The *Advanced Technology Vehicles Manufacturing* (ATVM) Loan Program was established in Section 136 of the Energy Independence and Security Act of 2007 to support the production of fuel-efficient, advanced technology vehicles and qualifying components in the United States. American Recovery and Reinvestment Act of 2009 amended Loan Guarantee Program's authorizing legislation, creating Section 1705.

Key findings

Table 3 and Table 4 summarize the allocation of federal direct financial interventions in U.S. energy markets by subsidy type. Several key findings stand out.

The scope and complexity of federal financial and award activities are very large and spread over a wide range of sources, recipients, and time frames. Despite a recent trend of decreasing federal activity, hundreds of distinct energy-related federal financial programs continue to pursue a wide range of goals using various methods. The time frames of these programs and activities can be very different, as in the case of tax provisions that allow taxpayers to decide which year to take a credit or to pay a deferred charge. Isolating the impacts of these programs, as well as characterizing the net impact of the whole set of actions on the U.S. energy system, is challenging.

Most current federal subsidies support developing renewable energy supplies (primarily biofuels, wind, and solar) and reducing energy consumption through energy efficiency. In FY 2016, nearly half (45%) of federal energy subsidies were associated with renewable energy, and 42% were associated with energy end uses. Table 4 shows a more detailed distribution of renewable energy-related federal support. The amount and distribution of renewable energy subsidies over time (see text box on *renewable-related subsidy trends*) have depended on congressional authorizations and the market competitiveness of renewable electricity technologies. Among renewable technologies, biofuels received the only incremental increase in FY 2016 subsidy support, driven by greater domestic biomass-based diesel production and foreign imports of these products that resulted in an approximately $1 billion increase in tax credits from FY 2013 levels.

Energy end-use and conservation subsidies decreased from $7.7 billion in FY 2013 to $7.2 billion in FY 2016 (Table 3). The largest program in this combined category–the Low Income Home Energy Assistance Program (LIHEAP) operated through the U.S. Department of Health and Human Services (HHS)–maintained its funding levels at $3.2 billion and $3.4 billion in FY 2013 and FY 2016, respectively. The decrease in total subsidies and support for energy-related conservation and end-use programs between FY 2013 and FY 2016 was led by declines in direct expenditures, which decreased from $4.2 billion to $3.6 billion, respectively. Of the $438 million decline in total federal support of conservation and end-use programs between FY 2013 and FY 2016, direct expenditures decreased $597 million. The tax credit for energy efficiency improvements to existing homes (26 U.S.C. 25C) accounted for $106 million of the decrease, and conversely, many tax expenditures (e.g., the credit for residential energy efficient property, 26 U.S.C. 25D) increased during the same period.

Since FY 2010, the scale of federal support has decreased as temporary measures expired, even as the U.S. energy system continues to grow. Federal activities within the scope of this study have been decreasing, in large part because of the expiration of provisions and programs authorized by the American Recovery and Reinvestment Act (ARRA or the Recovery Act) of 2009 (Figure 1). The Recovery Act provided energy funding that greatly increased DOE's previous energy program budgets but also required the rapid obligation of funds that would cover outlays over several years. The U.S. energy system, as a whole, continues to grow, with production activities growing more rapidly than energy consumption. As a result, the relative scale of federal activity within the overall context of the energy system has continued to decline since FY 2010.

Table 3. Quantified energy-specific subsidies and support by type, FY 2010, FY 2013, and FY 2016

million 2016 dollars, unless otherwise specified

Year and Support Type	Coal	Refined Coal	Natural Gas and Petroleum Liquids	Nuclear	Renewables	Electricity - Smart Grid and Transmission	Conservation	End Use	Total	Share of Total Subsidies and Support
2010										
Direct Expenditures	48	-	83	69	5,732	4	3,226	6,264	15,427	41%
Tax Expenditures	506	187	2,883	999	8,913	63	3,511	1,055	18,119	48%
Research and Development	320	-	10	177	844	566	704	97	2,718	7%
DOE Loan Guarantee Program	-	-	-	292	296	22	4	1,113	1,728	5%
Total	**875**	**187**	**2,976**	**1,537**	**15,785**	**655**	**7,446**	**8,530**	**37,992**	**100%**
Share of Total	**2%**	**0%**	**8%**	**4%**	**42%**	**2%**	**20%**	**22%**	**100%**	
2013										
Direct Expenditures	77	-	388	38	8,716	9	872	3,349	13,450	46%
Tax Expenditures	801	10	2,345	1,155	5,683	219	657	2,081	12,951	44%
Research and Development	216	-	64	197	864	887	517	189	2,934	10%
DOE Loan Guarantee Program	-	-	-	-	-	-	-	-	-	-
Total	**1,094**	**10**	**2,796**	**1,390**	**15,264**	**1,115**	**2,046**	**5,619**	**29,335**	**100%**
Share of Total	**4%**	**0%**	**10%**	**5%**	**52%**	**4%**	**7%**	**19%**	**100%**	
2016										
Direct Expenditures	19	-	111	40	909	11	234	3,391	4,716	31%
Tax Expenditures	906	-	(940)	160	5,316	160	560	2,653	8,816	59%
Research and Development	337	-	56	164	456	49	189	200	1,451	10%
DOE Loan Guarantee Program	-	-	-	-	-	-	-	-	-	-
Total	**1,262**	**-**	**(773)**	**365**	**6,682**	**220**	**983**	**6,244**	**14,983**	**100%**
Share of Total	**8%**	**-**	**(5%)**	**2%**	**45%**	**1%**	**7%**	**42%**	**100%**	

Notes: Totals may not equal sum of components due to independent rounding. Zero denotes rounding to zero value and a "-"symbol denotes a zero value. Energy-specific tax expenditures associated with renewables were allocated based on preliminary generation data. No hydropower generation was assumed to be eligible for production tax credits (PTC). It was assumed all investment tax credits were claimed by solar power plants. Municipal Solid Waste (MSW) and open-loop biomass generation estimates used to calculate PTCs were halved to represent the value of their PTC credit, relative to geothermal and wind. Generation estimates for 2016 were used to calculate credits associated with the PTC for wind plants that came online in 2006 and later.

Sources: **Tax expenditure estimates**: Office of Management and Budget, *Analytical Perspectives, Budget of the U.S. Government*, Fiscal Years 2012, 2015 and 2018. Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2016-2020*, JCX-3-17 (Washington, DC, January 2017), Table 1, *Estimates of Federal Tax Expenditures for Fiscal Years 2012-2017*, JCS-1-13 (Washington, DC, February 2013), Table 1, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2010-2014*, JCS-3-10 (Washington, DC, December 2010), Table 1. **Federal direct expenditure and R&D expenditure subsidies**: DOE: U.S. Department of Energy, Office of the Chief Financial Officer, *Base Financial Data*, FY 2010, FY 2013, and FY 2016; FYs 2010 and 2013: U.S. General Services Administration, USASpending.gov - Government spending at your fingertips, http://www.usaspending.gov/, accessed October 22, 2014; FY 2016: U.S. Department of the Treasury, USASpending.gov, http://www.usaspending.gov/, accessed November 16, 2017. **Loan guarantee programs credit subsidy**: Computed from data from U.S. Department of Energy, Loan Program Office, https://www.energy.gov/lpo/portfolio/portfolio-projects, accessed January 20, 2015 and EIA, *Direct Federal Financial Interventions and Subsidies in Fiscal Year 2010*, Table 29.

Table 4. Quantified renewable-related energy-specific subsidies and support by type, FY 2010, FY 2013, and FY 2016

million 2016 dollars, unless otherwise specified

	Renewable Electric									
Year and Support Type	**Biomass**	**Geothermal**	**Hydroelectric**	**Solar**	**Wind**	**Other**	**Subtotal Renewable Electric**	**Biofuels**	**Total Renewables**	**Share of Total Renewables Subsidies**
2010										
Direct Expenditures	185	67	63	481	4,241	330	5,369	363	5,732	36%
Tax Expenditures	575	1	19	132	1,297	-	2,023	6,890	8,913	56%
Research and Development	277	1	13	313	74	79	757	86	844	5%
DOE Loan Guarantee Program	-	13	-	190	94	-	297	-	296	2%
Total	**1,037**	**83**	**95**	**1,116**	**5,705**	**410**	**8,446**	**7,340**	**15,785**	**100%**
Share of Total Renewables	**7%**	**1%**	**1%**	**7%**	**36%**	**3%**	**54%**	**46%**	**100%**	
2013										
Direct Expenditures	346	325	205	3,094	4,454	218	8,642	75	8,716	57%
Tax Expenditures	48	32	18	2,164	1,682	-	3,944	1,740	5,683	37%
Research and Development	178	1	10	499	51	63	802	62	864	6%
DOE Loan Guarantee Program	-	-	-	-	-	-	-	-	-	-
Total	**572**	**358**	**233**	**5,756**	**6,187**	**280**	**13,387**	**1,878**	**15,264**	**100%**
Share of Total Renewables	**4%**	**2%**	**2%**	**38%**	**41%**	**2%**	**88%**	**12%**	**100%**	
2016										
Direct Expenditures	18	41	2	771	4	41	877	33	909	14%
Tax Expenditures	34	34	34	1,251	1,239	34	2,626	2,690	5,316	80%
Research and Development	27	10	2	209	24	95	367	90	456	7%
DOE Loan Guarantee Program	-	-	-	-	-	-	-	-	-	-
Total	**79**	**86**	**38**	**2,231**	**1,266**	**169**	**3,869**	**2,813**	**6,682**	**100%**
Share of Total Renewables	**1%**	**1%**	**1%**	**33%**	**19%**	**3%**	**58%**	**42%**	**100%**	

Notes: Totals may not equal sum of components due to independent rounding. Zero denotes rounding to zero value and a "-"symbol denotes a zero value. Energy-specific tax expenditures associated with renewables were allocated based on preliminary generation data. No hydropower generation was assumed to be eligible for production tax credits (PTC). It was assumed all investment tax credits were claimed by solar power plants. Municipal Solid Waste (MSW) and open-loop biomass generation estimates used

to calculate PTCs were halved to represent the value of their PTC credit, relative to geothermal and wind. Generation estimates for 2016 were used to calculate credits associated with the PTC captured wind plants that came online in 2006 and later.

Sources: **Tax expenditure estimates**: Office of Management and Budget, *Analytical Perspectives, Budget of the U.S. Government*, Fiscal Years 2012, 2015 and 2018. Joint Committee on Taxation, Estimates of Federal Tax Expenditures for Fiscal Years 2016-2020, JCX-3-17 (Washington, DC, January 2017), Table 1, *Estimates of Federal Tax Expenditures for Fiscal Years 2012-2017*, JCS-1-13 (Washington, DC, February 2013), Table 1, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2010-2014*, JCS-3-10 (Washington, DC, December 2010), Table 1, and, computed from data from U.S. Energy Information Administration (EIA), Form EIA-923,"Annual Electric Utility Data". **Federal direct expenditure and R&D expenditure subsidies**: U.S. General Services Administration, USASpending.gov - Government spending at your fingertips, http://www.usaspending.gov/, accessed October 22, 2014 and U.S. Department of the Treasury, USASpending.gov, accessed November 16, 2017. **Loan guarantee programs credit subsidy**: Computed from data from U.S. Department of Energy, Loan Program Office, http://energy.gov/lpo/loan-programs-office, accessed January 20, 2015 and EIA, *Direct Federal Financial Interventions and Subsidies in Fiscal Years 2010*, July 2011, Table 29.

四、OECD化石燃料补贴数据库—2016年、2017年美国各州向石油和天然气产业提供的补贴

Dataset: Fossil Fuel Support - USA

						Mechanism	Tax expenditure
						Level	Sub
						Unit	United States dollar
						Year	2016	2017
Measure	**Incidence**	**Indicator**	**Stage**	**Fuel Type**			
Severance-Tax Credit for Certain R&D Projects	Cost of Intermediate Inputs	Producer Support Estimate	Extraction or mining stage	Natural gas			
Reduced Tax Rate for Certain Wells Outside the Bakken and Three Forks Region				Petroleum	Crude oil	0	0
					Natural gas liquids	0	0
Coal Severance Tax Exemptions				Natural gas		0	0
				Coal		0	0
					Anthracite	0	0
					Coking coal	0	0
Coal Conversion Tax Exemptions					Other bituminous coal	0	0
				Natural gas		0	0
				Electricity-based support		0	0
Oil and Gas Tax Tribal Agreement Exemptions				Petroleum	Crude oil	0	0
Sales tax exemption for oil	Capital		Refining or processing stage			0	0
						0	0
					Natural gas liquids	0	0
				Natural gas		0	0
Development Credit for Small Producers and New Areas	Output Returns		Extraction or mining stage	Petroleum	Crude oil	36,299,536	0
Sales tax exemption for CO2 used for enhance oil recovery	Cost of Intermediate Inputs			Natural gas		13,700,464	0
				Petroleum	Crude oil	0	0
					Natural gas liquids	0	0
Sales tax exemption for natural gas				Natural gas		0	0
Alternative Credit for Exploration	Capital					0	0
				Petroleum	Crude oil	36,299,536	0
				Natural gas		13,700,464	0
Qualification of Oil from New or Expanded Enhanced Recovery Project for Special Rate	Output Returns			Petroleum	Crude oil		
Enhanced Recovery Projects Using Anthropogenic CO2						0	0
Oil and gas from wells previously inactive						0	0
Exclusion of Low Volume Oil & Gas Wells	Land and natural resources					0	0
				Natural gas		131,414	35,044
Coalbed Methane Exemption						4,366,586	1,164,956
Reduced Tax for Thin-Seamed Coal				Coal	Other bituminous coal	0	0
Percentage Depletion of Mineral and Other Resources	Capital			Petroleum	Crude oil	30,000,000	40,000,000
				Natural gas		6,217,053	6,583,947
Thin Seam Tax Credit	Land and natural resources			Coal		1,462,211	1,548,503
					Anthracite	12,310	13,357
					Coking coal	400,581	501,442
Coal Transportation Expense			Transportation of fossil fuels (e.g., through pipelines)		Other bituminous coal	1,787,109	1,785,201
					Anthracite	0	0
					Coking coal	0	0
Excess of Percentage over Cost Depletion	Capital		Extraction or mining stage		Other bituminous coal	0	0
					Anthracite	19,585	20,326
					Coking coal	637,288	763,064
Sales Tax Incentive for Alternative Fuel or Gasification Facilities			Refining or processing stage		Other bituminous coal	2,843,128	2,716,610
					Anthracite	0	0
					Coking coal	0	0
Railroad Improvement Tax Credit		General Services Support Estimate	Transportation of fossil fuels (e.g., through pipelines)		Other bituminous coal	0	0
Excess of Percentage over Cost Depletion		Producer Support Estimate	Extraction or mining stage	Petroleum	Crude oil	2,700,000	2,600,000
Natural Gas Severance Tax Suspension for Horizontal Wells	Land and natural resources			Natural gas		0	0
Natural Gas Severance Tax Suspension for Inactive Wells						84,472,151	83,190,848
Natural Gas Severance Tax Suspension for Deep Wells						170,506	0
						11,081,247	4,532,839

Natural Gas Severance Tax Suspension for New Discovery Wells						1,000,000	1,000,000
Reduced Severance Tax on Incapable Oil Well Gas						916,891	441,959
Reduced Severance Tax on Incapable Gas Well Gas						21,768,480	12,439,325
Oil Deduction Severance Tax on Transportation Fees	Output Returns	Transportation of fossil fuels (e.g., through pipelines)	Petroleum	Crude oil		363,029	440,958
Severance Tax Suspension on Oil from Horizontal Wells	Land and natural resources	Extraction or mining stage				11,872,434	9,292,722
Severance Tax Suspension on Oil from Inactive Wells						5,969,788	413,089
Severance Tax Suspension on Oil from Deep Wells						11,081,247	4,532,839
Severance Tax Suspension on Oil from New Discovery Wells						20,000,000	20,000,000
Severance Tax Suspension on Oil from Tertiary Recovery						13,039,821	13,097,821
Reduced Severance Tax Rate on Incapable Oil Wells						5,192,613	5,100,000
Reduced Severance Tax Rate on Oil from Stripper Wells						19,512,184	17,800,000
Severance Tax Exclusion on Flared or Vented Natural Gas			Natural gas			518,675	451,000
Severance Tax Exclusion for Natural Gas Used in Field Operations							
Severance Tax Exclusion for Carbon Black Producers		Refining or processing stage				7,453,016	5,600,000
Excess of Percentage over Cost Depletion	Capital	Extraction or mining stage	Petroleum	Crude oil		370,144	240,000
Enhanced Oil Recovery Deduction	Land and natural resources		Natural gas			4,675,098	2,014,290
Gross Production Tax Rebate for Horizontally Drilled Wells			Petroleum	Crude oil		14,465,902	6,232,710
Gross Production Tax Rebate for Reestablished Production			Natural gas			44,941	0
Gross Production Tax Rebate for Production Enhancement			Petroleum	Crude oil		139,059	0
Gross Production Tax Rebate for Deep and Ultra Deep Wells			Natural gas			1,788,852	0
Gross Production Tax Rebate for New Discovery Wells			Petroleum	Crude oil		5,535,148	0
Gross Production Tax Rebate for 3D Seismic Wells			Natural gas			226,660	0
Gross Production Tax Rebate for Economically At Risk Wells			Petroleum	Crude oil		701,340	0
Gross Production Tax Exemption for O&G Owned by Government			Natural gas			1,948,833	0
Gas Marketing Deduction Against Gross Production Tax			Petroleum	Crude oil		6,030,167	0
Sales Tax Exemption for Electricity Used in Enhanced Oil Recovery	Cost of Intermediate Inputs		Natural gas			563,474	0
Sales tax exemption for coal	Capital		Petroleum	Crude oil		1,743,526	0
Severance Tax Exemption for Stripper Wells	Land and natural resources		Natural gas			88,661	0
Severance Tax Oil and Gas Ad Valorem Credit			Petroleum	Crude oil		274,339	0
Cook Inlet Platform Royalty Relief			Natural gas			240,093	0
Small Cook Inlet Discoveries Royalty Relief			Petroleum	Crude oil		742,907	0
Royalty Modification for Ooguruk Unit			Natural gas			2,362,584	0
Taxable Per Barrel Credit	Output Returns		Petroleum	Crude oil		7,310,416	0
Gas Storage Facility Credit	Capital		Natural gas			1,508,703	2,711,610
						4,668,297	8,390,390
			Electricity-based support			14,339,000	19,527,000
			Coal	Anthracite		1,956,000	0
				Coking coal		0	0
				Other bituminous coal		0	0
			Petroleum	Crude oil		0	0
			Natural gas			12,176,375	12,176,375
			Petroleum	Crude oil		32,311,550	32,311,550
			Natural gas			71,373,510	0
			Petroleum	Crude oil		200,450,490	0
			Natural gas			801,064	756,836
			Petroleum	Crude oil		0	0
			Natural gas			0	0
			Petroleum	Crude oil		0	0
						13,563,175	18,055,564
		Transportation of fossil fuels (e.g.,	Natural gas			61,000,000	591,000,000
						0	0

LNG Storage Facility Credit		through pipelines)				
Gas Exploration and Development Credit	Land and natural resources	Extraction or mining stage			0	0
Gross Value Reduction			Petroleum	Crude oil	0	0
			Natural gas		0	0
Oil and Gas Industry Service Expenditures Credit			Petroleum	Crude oil	0	0
Sales Tax Exemption for Oil & Gas Equipment	Capital		Natural gas		0	0
			Petroleum	Crude oil	0	0
Property-Tax Exemption for Intangible Drilling Expenses	Cost of Intermediate Inputs		Natural gas		58,334,914	27,199,897
In-State Refinery Tax Credit	Capital		Petroleum	Crude oil	76,565,086	35,700,103
Impact Assistance Credit					0	0
			Coal	Other bituminous coal	0	0
			Petroleum	Crude oil	0	0
Severance-Tax Reductions for Low-Volume Wells	Land and natural resources		Natural gas		0	0
Severance-Tax Reduction for Underground Coal			Petroleum	Crude oil	0	0
			Natural gas		0	0
Severance-Tax Reduction for Lignite			Coal	Anthracite	0	0
				Coking coal	10,179	0
Severance-Tax Exemption for Low-Volume Coal Mining				Other bituminous coal	331,207	0
				Lignite	1,477,614	0
Severance-Tax Reductions for New Oil-Shale Facilities				Anthracite	0	0
				Coking coal	20,290	0
				Other bituminous coal	660,230	0
Severance-Tax Exemption for Low-Volume Oil-Shale Production			Petroleum	Crude oil	2,945,480	0
				Natural gas liquids	0	0
			Natural gas		0	0
Occupational-Privilege-Tax Exemption for Oil and Gas Workers	Labour		Petroleum	Crude oil	0	0
				Natural gas liquids	0	0
			Natural gas		0	0
Reduced Value for Certain Mineral Properties	Land and natural resources		Petroleum	Crude oil	0	0
				Natural gas liquids	0	0
			Natural gas		0	0
Sales-Tax Exemption for CO2 Used in Tertiary Recovery	Cost of Intermediate Inputs		Petroleum	Crude oil	0	0
Sales-Tax Exclusion for Installation of Board Roads in Oil-fields					0	0
Sales-Tax Exclusion on Drilling Rigs			Natural gas		0	6,926
			Petroleum	Crude oil	0	36,941
				Natural gas liquids	0	0
			Natural gas		0	0
Sales-Tax Exemption for Repairs and Materials Used on Drilling Rigs			Petroleum	Crude oil	0	0
			Natural gas		0	295,548
Severance Tax Exemptions for Crude Oil and Natural Gas	Land and natural resources		Petroleum	Crude oil	0	55,415
			Natural gas		111,856,553	0
Cost of Complying with Sulphur Regulations	Cost of Intermediate Inputs		Petroleum	Crude oil	31,098,598	0
				Natural gas liquids	0	0
			Natural gas		0	0
Full Expensing of Capital Investments in Qualified New Refinery Capacity	Capital		Petroleum	Crude oil	0	0
				Natural gas liquids	0	0
			Natural gas		0	0
Gross Production and Excise Tax Credits, Small Business and Rural	Enterprise Income		Petroleum	Crude oil	0	0
Coal Waste Removal Tax Credit	Capital		Natural gas		153,142	0
			Coal	Anthracite	473,858	0
				Coking coal	0	0
Realty-Transfer Tax Exemption for Resource Leases	Land and natural resources			Other bituminous coal	0	0
				Anthracite	0	0
				Coking coal	0	0
				Other bituminous coal	0	0
			Petroleum	Crude oil	0	0
Alternative Energy Production Tax	Capital		Natural gas		0	0
			Coal	Anthracite	0	0

Credit						
Severance-Tax Reduction for Stripper Wells	Land and natural resources					
Severance-Tax Reduction for Tertiary Recovery						
24-Month Severance-Tax Reduction						
Severance-Tax Reduction for Workover Wells						
Severance-Tax Reduction for Idle Wells						
Severance-Tax Reduction for Underground Coal						
Severance-Tax Exemption for Coal Used as Process Energy						
Severance-Tax Exemption for Flared Natural Gas						
Property-Tax Exemption for Underground Coal-Mining Equipment						
Sales-Tax Exemption for Transporting Drilling Rigs						
Sales-Tax Exemption for Certain Well Services						
Qualified Capital Expenditure Credit	Capital					
Sales-Tax Exemption for Coal-Gasification Equipment						
Sales-Tax Exemption for CO2 Used in Tertiary Production	Cost of Intermediate Inputs					
Gas Gross Production Tax Exemptions + Oil Extraction Tax	Land and natural resources					
Data extracted on 29 Apr 2020 09:49 UTC (GMT) from OECD.Stat						

	Coking coal	0	0	
	Other bituminous coal	0	0	
Petroleum	Crude oil	0	0	
	Natural gas liquids	0	0	
Natural gas		0	0	
Petroleum	Crude oil	0	0	
	Natural gas liquids	0	0	
Natural gas		0	0	
Petroleum	Crude oil	0	0	
	Natural gas liquids	0	0	
Natural gas		0	0	
Petroleum	Crude oil	0	0	
		0	0	
Coal		0	0	
	Anthracite	0	0	
	Coking coal	0	0	
	Other bituminous coal	0	0	
	Anthracite	0	0	
	Coking coal	0	0	
	Other bituminous coal	0	0	
Natural gas				
Coal		0	0	
	Anthracite	0	0	
	Coking coal	0	0	
	Other bituminous coal	0	0	
Petroleum	Crude oil	0	0	
	Natural gas liquids	0	0	
Natural gas		0	0	
Petroleum	Crude oil	0	0	
	Natural gas liquids	0	0	
Natural gas		0	0	
Petroleum	Crude oil	0	0	
Natural gas		440,676,366	0	
Coal		166,323,634	0	
	Anthracite	0	0	
	Coking coal	0	0	
	Other bituminous coal	0	0	
Petroleum	Crude oil	0	0	
	Natural gas liquids	0	0	
Natural gas		0	0	
Petroleum	Crude oil	144,139,519	175,068,569	
Natural gas		40,073,977	48,672,937	
		1903532302	1216518511	

Dataset: Fossil Fuel Support - USA

						Mechanism	Budgetary transfer	
						Level	Sub	
						Unit	United States dollar	
Measure	**Incidence**	**Indicator**	**Stage**	**Fuel Type**		Year	2016	2017
Alaska Gasline Inducement Act	Capital	Producer Support Estimate	Transportation of fossil fuels (e.g., through pipelines)	Natural gas				
Coal Academy Mining Workforce Development	Labour	General Services Support Estimate	Extraction or mining stage	Coal	Anthracite		0	0
					Coking coal		16,787	17,422
Mine Safety and Licensing					Other bituminous coal		546,247	654,055
					Anthracite		2,436,966	2,328,523
					Coking coal		54,643	58,163
Oil and Gas Impact Grant Fund	Land and natural resources				Other bituminous coal		1,778,081	2,183,528
				Petroleum	Crude oil		7,932,542	7,773,650
Abandoned Oil and Gas Well Plugging and Site Reclamation Fund				Natural gas			117,533,009	65,254,899
				Petroleum	Crude oil		22,466,991	12,473,783
Coal Development Trust Fund				Natural gas			8,050,441	8,050,441
Abandoned Mine Reclamation Fund				Coal	Lignite		2,238,201	2,238,201
							3,136,599	3,081,651
Data extracted on 30 Apr 2020 08:29 UTC (GMT) from OECD.Stat							2,796,000	2,793,000
							168986507	106907316

- **Database Specific**
- **Abstract**

UNITED STATES: GENERAL METADATA

Data documentation

General notes

The fiscal year in the United States runs from 1 October to 30 September. Following OECD convention, data are allocated to the ending calendar year so that data covering the period October 2005 to September 2006 are allocated to 2006. States can, however, have a different fiscal year.

Since the United States is a federal country, data collection was also conducted for a sample comprising the following states: Alaska (AK), California (CA), Colorado (CO), Kentucky (KY), Louisiana (LA), North Dakota (ND), Oklahoma (OK), Pennsylvania (PA), Texas (TX), West Virginia (WV), and Wyoming (WY).

- **Country note**
- **Sources**

- **Source**
- **Contact person/organisation**
  - **ffs.contact@oecd.org**
- **Name of collection/source**

OECD (2018), OECD Companion to the Inventory of Support Measures for Fossil Fuels 2018, Paris.

- **Data Characteristics**
- **Date last updated**

Apr-19

- **Periodicity**

Annual

- **Power code**

Units

- **Unit of measure used**

United States dollar

- **Concepts & Classifications**
- **Key statistical concept**

Indicator

PSE: Producer Support Estimate

GSSE: General Services Support Estimate

CSE: Consumer Support Estimate

Stage

EXTRACT: Extraction or mining stage

TRANS: Transportation of fossil fuels (e.g., through pipelines)

REFIN: Refining or processing stage

GENER: Use of fossil fuels in ectricity generation

INDUS: Use of fossil fuels in the industrial sector

END: Other end uses of fossil fuels

Statutory or Formal Incidence

consumption: Direct consumption

returns: Output Returns

income: Enterprise Income

inputs: Cost of Intermediate Inputs

labour: Labour

land: Land and natural resources

capital: Capital

knowledge: Knowledge

- **Other Aspects**
- **Other comments**
  - **OECD Companion to the Inventory of Support Measures for Fossil Fuels 2018**
- **Recommended uses and limitations**

Users of tax expenditure estimates should bear in mind that the Inventory records tax expenditures as estimates of revenue that is foregone due to a particular feature of the tax system that reduces or postpones tax relative to a jurisdiction's benchmark tax system, to the benefit of fossil fuels. Hence, (i) tax expenditure estimates could increase either because of greater concessions, relative to the benchmark tax treatment, or

because of a raise in the benchmark itself; (ii) international comparison of tax expenditures could be misleading, due to country-specific benchmark tax treatments.

UNITED STATES: SOURCES

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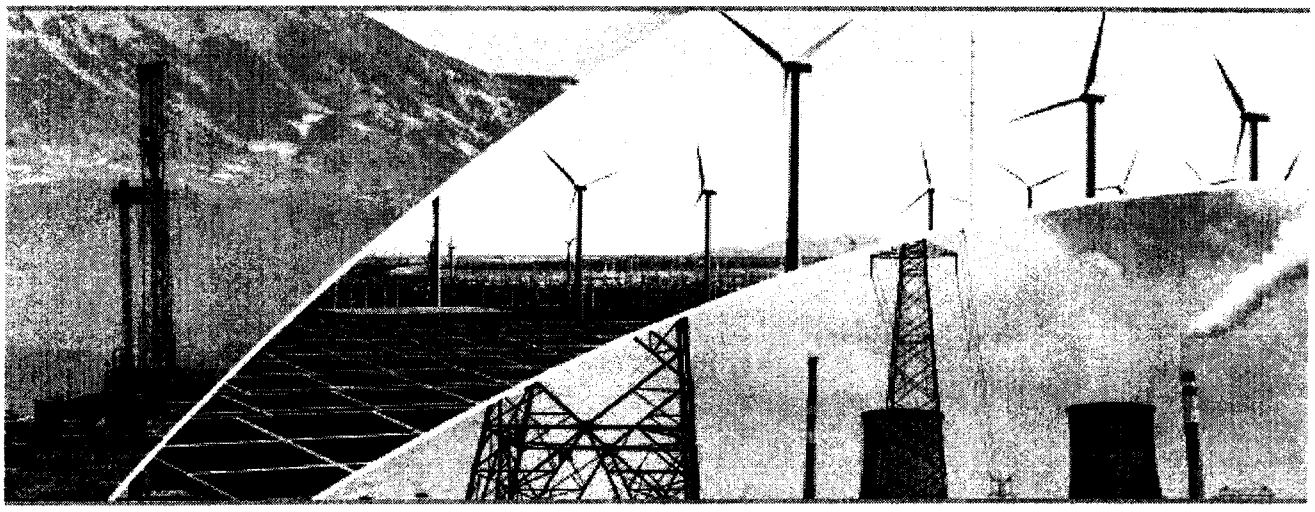
Annual Energy Outlook 2019

with projections to 2050



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ref2019.d111618a

Report Annual Energy Outlook 2019
Scenario ref2019 Reference case
Datekey d111618a
Release Date January 2019

2. Energy Consumption by Sector and Source

(quadrillion Btu, unless otherwise noted)

Sector and Source	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2018-2050
Residential																																			
Propane	0.49	0.50	0.48	0.45	0.44	0.43	0.43	0.42	0.42	0.41	0.40	0.40	0.40	0.39	0.39	0.39	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	-1.0%
Distillate Fuel Oil 1/	0.48	0.49	0.48	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.33	0.33	0.32	0.31	0.31	0.30	0.29	0.29	0.28	0.27	0.27	0.26	0.26	0.25	0.25	0.24	0.24	0.23	0.23	0.22	0.22	-2.5%
Petroleum and Other Liquids Subtotal	0.97	0.99	0.95	0.89	0.87	0.85	0.83	0.81	0.79	0.78	0.76	0.75	0.74	0.73	0.72	0.71	0.70	0.69	0.68	0.67	0.66	0.66	0.65	0.64	0.64	0.63	0.62	0.62	0.61	0.61	0.60	0.60	0.59	0.59	-1.6%
Natural Gas	4.58	5.02	4.97	4.81	4.79	4.77	4.75	4.73	4.71	4.69	4.68	4.67	4.65	4.65	4.64	4.63	4.63	4.62	4.62	4.62	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.60	4.60	-0.3%
Renewable Energy 2/	0.37	0.44	0.45	0.44	0.43	0.43	0.42	0.42	0.42	0.42	0.42	0.42	0.41	0.41	0.41	0.40	0.40	0.40	0.39	0.39	0.39	0.38	0.38	0.38	0.37	0.37	0.37	0.36	0.36	0.35	0.35	0.35	0.34	0.34	-2.8%
Electricity	3.75	3.99	4.03	4.03	4.01	4.00	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.05	4.07	4.06	4.06	5.01	5.04	5.07	5.11	5.14	5.17	5.20	5.24	5.27	5.30	5.34	5.37	5.41	5.44	5.48	5.51	5.54	0.5%
Delivered Energy	**10.62**	**11.43**	**11.30**	**11.07**	**11.00**	**10.95**	**10.90**	**10.85**	**10.80**	**10.77**	**10.76**	**10.75**	**10.74**	**10.73**	**10.74**	**10.74**	**10.74**	**10.75**	**10.77**	**10.78**	**10.80**	**10.82**	**10.84**	**10.87**	**10.89**	**10.91**	**10.94**	**10.96**	**10.99**	**11.01**	**11.04**	**11.06**	**11.08**	**11.11**	**-0.1%**
Electricity Related Losses	9.27	9.71	9.48	9.37	9.13	8.94	8.79	8.70	8.56	8.49	8.43	8.39	8.39	8.37	8.35	8.29	8.27	8.25	8.26	8.29	8.29	8.31	8.34	8.36	8.37	8.38	8.40	8.42	8.44	8.46	8.49	8.52	8.55	8.57	-0.4%
Total	**19.89**	**21.14**	**20.79**	**20.44**	**20.13**	**19.88**	**19.69**	**19.55**	**19.39**	**19.27**	**19.18**	**19.13**	**19.13**	**19.11**	**19.09**	**19.02**	**19.01**	**19.00**	**19.03**	**19.07**	**19.10**	**19.13**	**19.18**	**19.22**	**19.26**	**19.29**	**19.33**	**19.38**	**19.42**	**19.47**	**19.53**	**19.58**	**19.63**	**19.68**	**-0.2%**
Commercial																																			
Propane	0.15	0.16	0.15	0.16	0.16	0.16	0.16	0.16	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19	0.19	0.7%
Motor Gasoline 3/	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.1%
Kerosene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1%
Distillate Fuel Oil	0.33	0.35	0.34	0.33	0.33	0.33	0.33	0.33	0.33	0.32	0.32	0.32	0.32	0.31	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.28	0.28	-0.6%
Residual Fuel Oil	0.00	0.02	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-1.8%
Petroleum and Other Liquids Subtotal	0.86	0.89	0.92	0.89	0.89	0.88	0.88	0.87	0.87	0.86	0.86	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.65	0.65	0.85	0.66	0.86	0.86	0.86	0.86	0.87	0.87	0.87	0.88	0.88	0.0%
Natural Gas	3.28	3.42	3.43	3.39	3.40	3.40	3.39	3.39	3.38	3.39	3.40	3.42	3.43	3.45	3.47	3.49	3.51	3.53	3.56	3.58	3.61	3.64	3.67	3.70	3.73	3.77	3.80	3.84	3.87	3.91	3.95	3.99	4.03	4.07	0.5%
Coal	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.0%
Renewable Energy 4/	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.0%
Electricity	4.60	4.68	4.63	4.70	4.73	4.75	4.77	4.78	4.80	4.81	4.82	4.84	4.86	4.87	4.89	4.90	4.92	4.94	4.96	4.99	5.01	5.04	5.07	5.10	5.12	5.16	5.19	5.23	5.27	5.32	5.37	5.42	5.48	5.54	0.5%
Delivered Energy	**8.91**	**9.15**	**9.14**	**9.14**	**9.17**	**9.19**	**9.20**	**9.20**	**9.21**	**9.22**	**9.24**	**9.28**	**9.31**	**9.33**	**9.36**	**9.40**	**9.44**	**9.48**	**9.53**	**9.58**	**9.63**	**9.69**	**9.75**	**9.81**	**9.87**	**9.94**	**10.01**	**10.09**	**10.17**	**10.26**	**10.35**	**10.45**	**10.55**	**10.65**	**0.5%**
Electricity Related Losses	9.07	9.11	8.91	8.92	8.79	8.66	8.55	8.51	8.43	8.35	8.30	8.26	8.27	8.24	8.21	8.14	8.11	8.08	8.08	8.09	8.09	8.10	8.12	8.13	8.14	8.15	8.17	8.19	8.23	8.27	8.33	8.38	8.45	8.52	-0.2%
Total	**17.98**	**18.27**	**18.05**	**18.07**	**17.96**	**17.85**	**17.75**	**17.70**	**17.63**	**17.56**	**17.54**	**17.54**	**17.58**	**17.57**	**17.57**	**17.54**	**17.55**	**17.57**	**17.61**	**17.67**	**17.72**	**17.79**	**17.87**	**17.94**	**18.01**	**18.08**	**18.18**	**18.28**	**18.39**	**18.52**	**18.68**	**18.83**	**19.00**	**19.17**	**0.2%**
Industrial 5/																																			
Liquefied Petroleum Gases and Other 6/	2.86	3.11	3.23	3.13	3.34	3.44	3.50	3.57	3.62	3.66	3.74	3.79	3.85	3.88	3.93	3.96	4.01	4.00	4.03	4.07	4.08	4.13	4.16	4.16	4.21	4.24	4.23	4.26	4.28	4.30	4.33	4.38	4.38	4.41	1.1%
Motor Gasoline 3/	0.26	0.26	0.26	0.27	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.6%
Distillate Fuel Oil	1.17	1.22	1.33	1.25	1.25	1.26	1.26	1.27	1.27	1.28	1.28	1.29	1.29	1.30	1.31	1.32	1.32	1.33	1.34	1.35	1.36	1.37	1.38	1.39	1.41	1.42	1.43	1.44	1.46	1.47	1.48	1.50	1.51	1.52	0.7%
Residual Fuel Oil	0.06	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.9%
Petrochemical Feedstock	0.70	0.66	0.70	0.73	0.77	0.82	0.86	0.90	0.93	0.95	0.99	1.02	1.06	1.08	1.10	1.13	1.15	1.15	1.16	1.18	1.19	1.21	1.23	1.24	1.25	1.27	1.27	1.28	1.29	1.30	1.31	1.34	1.34	1.36	2.3%
Other Petroleum 7/	3.40	3.47	3.50	3.49	3.41	3.34	3.30	3.24	3.22	3.16	3.17	3.21	3.19	3.22	3.26	3.28	3.29	3.37	3.39	3.39	3.50	3.52	3.55	3.60	3.64	3.65	3.71	3.78	3.84	3.90	3.95	3.99	4.02	4.06	0.5%
Petroleum and Other Liquids Subtotal	8.35	8.77	8.98	8.92	9.11	9.19	9.26	9.32	9.38	9.43	9.55	9.67	9.76	9.84	9.94	9.97	10.06	10.14	10.22	10.29	10.36	10.50	10.62	10.70	10.79	10.89	10.97	11.03	11.15	11.25	11.36	11.46	11.60	11.65	11.7%
Natural Gas	8.24	8.53	8.52	8.75	8.95	9.13	9.28	9.40	9.44	9.52	9.57	9.67	9.69	9.72	9.75	9.77	9.77	9.79	9.84	9.90	9.94	10.03	10.06	10.13	10.19	10.23	10.26	10.32	10.43	10.45	10.52	10.58	10.65	10.71	0.7%
Natural Gas to Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Lease and Plant Fuel 8/	1.83	1.81	1.94	2.03	2.07	2.11	2.14	2.17	2.20	2.26	2.28	2.29	2.30	2.30	2.32	2.33	2.34	2.36	2.37	2.39	2.40	2.42	2.43	2.46	2.45	2.45	2.45	2.45	2.44	2.44	2.43	2.43	2.42	2.42	0.9%
Natural Gas to Liquefy Gas for Export 9/	0.27	0.11	0.20	0.28	0.30	0.30	0.34	0.39	0.43	0.47	0.49	0.51	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	5.0%
Natural Gas Subtotal	9.94	10.45	10.65	11.06	11.33	11.55	11.76	11.96	12.08	12.25	12.34	12.47	12.51	12.56	12.60	12.64	12.64	12.68	12.74	12.82	12.87	12.98	13.04	13.11	13.17	13.21	13.26	13.30	13.40	13.42	13.48	13.55	13.60	13.66	0.8%
Metallurgical Coal	0.50	0.55	0.58	0.53	0.50	0.49	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.50	0.49	0.49	0.49	0.48	0.48	0.48	0.48	0.48	0.47	0.47	-0.5%
Other Industrial Coal	0.64	0.59	0.57	0.59	0.61	0.62	0.63	0.64	0.64	0.64	0.64	0.63	0.63	0.62	0.62	0.61	0.60	0.59	0.59	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	-0.1%
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Net Coal Coke Imports	-0.03	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-1.1%
Coal Subtotal	1.12	1.13	1.13	1.11	1.09	1.09	1.09	1.10	1.10	1.10	1.10	1.10	1.10	1.09	1.09	1.08	1.08	1.08	1.07	1.07	1.07	1.07	1.07	1.06	1.06	1.06	1.05	1.05	1.05	1.04	1.04	1.04	1.04	1.03	-0.2%
Biofuels Heat and Coproducts	0.78	0.78	0.80	0.84	0.84	0.84	0.84	0.84	0.85	0.85	0.85	0.85	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.2%
Renewable Energy 10/	1.65	1.64	1.58	1.61	1.65	1.68	1.72	1.75	1.78	1.81	1.83	1.86	1.88	1.90	1.92	1.94	1.97	2.01	2.04	2.08	2.11	2.15	2.18	2.21	2.24	2.27	2.29	2.33	2.36	2.40	2.43	2.46	2.49	2.53	1.4%
Electricity	3.23	3.24	3.27	3.37	3.46	3.52	3.57	3.62	3.67	3.71	3.75	3.80	3.83	3.85	3.87	3.89	3.90	3.92	3.94	3.97	3.99	4.02	4.05	4.07	4.09	4.11	4.13	4.15	4.18	4.21	4.23	4.26	4.28	4.31	0.9%
Delivered Energy	**25.10**	**26.00**	**26.42**	**26.91**	**27.48**	**27.87**	**28.23**	**28.59**	**28.88**	**29.15**	**29.41**	**29.74**	**29.92**	**30.08**	**30.29**	**30.46**	**30.58**	**30.75**	**30.93**	**31.14**	**31.40**	**31.69**	**31.89**	**32.09**	**32.30**	**32.45**	**32.60**	**32.81**	**33.07**	**33.27**	**33.48**	**33.75**	**33.90**	**34.12**	**0.9%**
Electricity Related Losses	6.37	6.30	6.29	6.40	6.43	6.41	6.40	6.44	6.45	6.45	6.45	6.48	6.51	6.50	6.50	6.45	6.44	6.42	6.42	6.44	6.45	6.47	6.48	6.49	6.49	6.49	6.49	6.50	6.51	6.54	6.56	6.59	6.60	6.62	0.2%
Total	**31.47**	**32.31**	**32.71**	**33.31**	**33.90**	**34.28**	**34.63**	**35.03**	**35.33**	**35.60**	**35.87**	**36.22**	**36.44**	**36.59**	**36.79**	**36.91**	**37.02**	**37.17**	**37.35**	**37.58**	**37.85**	**38.16**	**38.37**	**38.58**	**38.79**	**38.94**	**39.08**	**39.31**	**39.59**	**39.81**	**40.05**	**40.33**	**40.50**	**40.74**	**0.7%**
Transportation																																			
Propane	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.5%
Motor Gasoline 3/	16.69	16.66	16.57	16.36	16.07	15.76	15.40	15.02	14.62	14.31	14.03	13.77	13.52	13.28	13.06	12.86	12.67	12.50	12.35	12.24	12.15	12.08	12.03	12.00	11.98	11.98	12.00	12.02	12.05	12.10	12.16	12.22	12.25	12.29	-0.9%
of which, E85 11/	0.01	0.04	0.04	0.05	0.06	0.07	0.07	0.10	0.14	0.14	0.16	0.17	0.19	0.21	0.21	0.21	0.22	0.23	0.24	0.24	0.25	0.25	0.25	0.25	0.23	0.22	0.21	0.20	0.19	0.16	0.13	0.11	0.11	0.11	3.1%
Jet Fuel 12/	2.91	2.95	3.01	3.04	3.07	3.09	3.10	3.12	3.15	3.18	3.21	3.25	3.28	3.31	3.34	3.37	3.40	3.44	3.47	3.50	3.53	3.56	3.60	3.63	3.66	3.69	3.73	3.76	3.80	3.84	3.88	3.91	3.95	3.99	0.9%
Distillate Fuel Oil 13/	6.69	6.77	6.97	7.10	6.97	6.88	6.85	6.83	6.81	6.79	6.75	6.71	6.66	6.61	6.57	6.52	6.48	6.45	6.45	6.44	6.44	6.44	6.44	6.43	6.43	6.43	6.43	6.45	6.47	6.49	6.52	6.54	6.56	6.58	-0.1%
Residual Fuel Oil	0.69	0.64	0.68	0.37	0.44	0.58	0.61	0.62	0.64	0.63	0.62	0.61	0.61	0.59	0.59	0.59	0.59	0.58	0.55	0.55	0.54	0.53	0.53	0.53	0.53	0.52	0.54	0.52	0.52	0.51	0.51	0.51	0.51	0.51	-0.7%
Other Petroleum 14/	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	-0.1%
Petroleum and Other Liquids Subtotal	27.35	27.19	27.38	27.04	26.71	26.47	26.12	25.75	25.38	25.07	24.76	24.50	24.23	23.95	23.72	23.50	23.30	23.13	22.98	22.88	22.82	22.78	22.76	22.75	22.76	22.79	22.85	22.91	23.00	23.10	23.23	23.34	23.44	23.54	-0.4%
Pipeline and Distribution Fuel Natural Gas	0.68	0.70	0.69	0.67	0.66	0.65	0.64	0.64	0.65	0.66	0.66	0.67	0.68	0.68	0.69	0.69	0.69	0.70	0.70	0.70	0.70	0.70	0.71	0.71	0.72	0.72	0.73	0.73	0.74	0.74	0.75	0.75	0.76	0.76	0.3%
Compressed / Liquefied Natural Gas	0.07	0.08	0.09	0.09	0.13	0.12	0.13	0.13	0.14	0.14	0.16	0.17	0.18	0.20	0.21	0.22	0.24	0.25	0.27	0.29	0.30	0.32	0.34	0.36	0.37	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.55	6.2%
Hydrogen	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	12.4%
Electricity	0.04	0.04	0.06	0.07	0.09	0.11	0.12	0.14	0.16	0.18	0.19	0.21	0.23	0.25	0.26	0.28	0.30	0.32	0.34	0.35	0.37	0.39	0.41	0.43	0.45	0.47	0.49	0.50	0.52	0.54	0.56	0.58	0.60	0.61	8.7%

Delivered Energy	**27.94**	**28.02**	**28.22**	**27.88**	**27.59**	**27.35**	**27.02**	**26.68**	**26.34**	**26.07**	**25.80**	**25.58**	**25.34**	**25.10**	**24.91**	**24.73**	**24.56**	**24.43**	**24.32**	**24.26**	**24.23**	**24.23**	**24.25**	**24.28**	**24.34**	**24.41**	**24.51**	**24.62**	**24.75**	**24.89**	**25.06**	**25.23**	**25.37**	**25.51**	**-0.3%**
Electricity Related Losses	0.07	0.08	0.11	0.13	0.16	0.19	0.22	0.25	0.28	0.31	0.33	0.36	0.39	0.42	0.44	0.47	0.50	0.52	0.55	0.58	0.60	0.63	0.66	0.68	0.71	0.74	0.76	0.79	0.81	0.84	0.87	0.89	0.92	0.94	7.9%
Total	**28.01**	**28.10**	**28.32**	**28.01**	**27.75**	**27.55**	**27.24**	**26.93**	**26.62**	**26.37**	**26.13**	**25.94**	**25.73**	**25.52**	**25.35**	**25.19**	**25.06**	**24.95**	**24.87**	**24.83**	**24.83**	**24.86**	**24.91**	**24.97**	**25.05**	**25.14**	**25.27**	**25.41**	**25.56**	**25.73**	**25.93**	**26.12**	**26.29**	**26.45**	**-0.2%**
Unspecified Sector 15/																																			
Total	**0.06**	**0.32**	**0.39**	**0.35**	**0.32**	**0.32**	**0.33**	**0.33**	**0.34**	**0.34**	**0.35**	**0.36**	**0.37**	**0.37**	**0.38**	**0.39**	**0.40**	**0.41**	**0.41**	**0.42**	**0.42**	**0.43**	**0.43**	**0.44**	**0.45**	**0.45**	**0.46**	**0.47**	**0.47**	**0.48**	**0.49**	**0.49**	**0.50**	**0.51**	**1.4%**
Delivered Energy Consumption, All Sectors																																			
Liquefied Petroleum Gases and Other 6/	3.45	3.77	3.87	3.75	3.95	4.04	4.09	4.16	4.20	4.23	4.31	4.35	4.42	4.44	4.49	4.53	4.57	4.56	4.59	4.62	4.63	4.69	4.72	4.73	4.76	4.80	4.79	4.82	4.84	4.87	4.89	4.94	4.95	4.98	0.9%
Motor Gasoline 3/	17.21	17.22	17.24	17.04	16.75	16.44	16.09	15.71	15.32	15.01	14.73	14.48	14.22	13.98	13.77	13.57	13.38	13.22	13.07	12.95	12.86	12.80	12.75	12.72	12.71	12.71	12.73	12.75	12.78	12.84	12.90	12.96	13.00	13.04	-0.9%
of which: E85 11/	0.01	0.04	0.04	0.05	0.06	0.07	0.07	0.10	0.14	0.14	0.16	0.17	0.19	0.21	0.21	0.21	0.22	0.23	0.24	0.24	0.25	0.25	0.25	0.25	0.23	0.22	0.21	0.20	0.19	0.16	0.13	0.11	0.11	0.11	3.1%
Jet Fuel 12/	3.48	3.58	3.68	3.68	3.66	3.69	3.70	3.73	3.76	3.80	3.83	3.88	3.92	3.95	3.99	4.03	4.07	4.11	4.15	4.18	4.22	4.26	4.30	4.33	4.37	4.41	4.45	4.49	4.54	4.58	4.63	4.68	4.72	4.77	0.9%
Kerosene 16/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1%
Distillate Fuel Oil 1/	8.27	8.59	8.71	8.79	8.66	8.57	8.54	8.51	8.48	8.45	8.40	8.36	8.30	8.26	8.21	8.16	8.12	8.09	8.10	8.09	8.09	8.10	8.10	8.09	8.10	8.10	8.11	8.14	8.16	8.19	8.22	8.25	8.28	8.31	-0.1%
Residual Fuel Oil	0.75	0.71	0.78	0.46	0.53	0.66	0.69	0.69	0.71	0.69	0.68	0.68	0.68	0.66	0.66	0.66	0.66	0.65	0.62	0.61	0.61	0.60	0.62	0.60	0.60	0.59	0.61	0.59	0.59	0.59	0.59	0.59	0.59	0.59	-0.6%
Petrochemical Feedstocks	0.70	0.66	0.70	0.73	0.77	0.82	0.86	0.90	0.93	0.95	0.98	1.02	1.06	1.06	1.10	1.13	1.15	1.15	1.16	1.18	1.19	1.21	1.23	1.24	1.25	1.27	1.27	1.28	1.29	1.30	1.31	1.34	1.34	1.36	2.3%
Other Petroleum 17/	3.56	3.63	3.66	3.64	3.57	3.49	3.45	3.39	3.37	3.34	3.32	3.36	3.34	3.37	3.42	3.43	3.44	3.52	3.54	3.54	3.65	3.68	3.70	3.75	3.79	3.80	3.86	3.93	3.99	4.05	4.10	4.14	4.17	4.21	0.5%
Petroleum and Other Liquids Subtotal	37.42	38.16	38.62	38.09	37.89	37.72	37.42	37.08	36.77	36.48	36.28	36.13	35.94	35.74	35.53	35.51	35.36	35.29	35.21	35.18	35.25	35.34	35.40	35.48	35.56	35.69	35.82	36.01	36.19	36.41	36.65	36.91	37.05	37.26	-0.1%
Natural Gas	16.17	17.05	17.01	17.05	17.27	17.43	17.55	17.64	17.66	17.74	17.81	17.92	17.95	18.01	18.07	18.12	18.15	18.20	18.29	18.39	18.46	18.60	18.75	18.79	18.90	18.99	19.09	19.19	19.36	19.44	19.56	19.69	19.81	19.93	0.5%
Natural-Gas-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Lease and Plant Fuel 8/	1.63	1.81	1.94	2.03	2.07	2.11	2.14	2.17	2.20	2.26	2.28	2.29	2.30	2.30	2.32	2.33	2.34	2.36	2.37	2.39	2.40	2.42	2.43	2.46	2.45	2.45	2.45	2.45	2.44	2.44	2.43	2.43	2.42	2.42	0.9%
Natural Gas to Liquefy Gas for Export 9/	0.07	0.11	0.20	0.28	0.30	0.30	0.34	0.39	0.43	0.47	0.49	0.51	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	5.0%
Pipeline and Distribution Fuel Natural Gas	0.68	0.70	0.69	0.67	0.66	0.65	0.64	0.64	0.65	0.66	0.66	0.67	0.68	0.68	0.69	0.69	0.70	0.70	0.70	0.70	0.70	0.70	0.71	0.71	0.72	0.72	0.73	0.73	0.74	0.74	0.75	0.75	0.76	0.76	0.3%
Natural Gas Subtotal	18.55	19.67	19.84	20.03	20.31	20.49	20.67	20.84	20.95	21.13	21.24	21.40	21.46	21.53	21.60	21.68	21.71	21.78	21.89	22.01	22.10	22.25	22.37	22.49	22.60	22.70	22.80	22.90	23.07	23.15	23.27	23.40	23.52	23.64	0.6%
Metallurgical Coal	0.50	0.55	0.58	0.53	0.50	0.49	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.49	0.49	0.49	0.48	0.46	0.48	0.48	0.48	0.47	0.47	-0.5%
Other Coal	0.66	0.60	0.58	0.61	0.63	0.64	0.65	0.65	0.66	0.66	0.65	0.65	0.65	0.64	0.63	0.63	0.62	0.61	0.61	0.60	0.60	0.60	0.60	0.60	0.60	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	-0.1%
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Net Coal Coke Imports	-0.03	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	--
Coal Subtotal	1.14	1.14	1.15	1.13	1.11	1.11	1.11	1.11	1.12	1.12	1.12	1.12	1.12	1.11	1.11	1.10	1.10	1.09	1.09	1.09	1.09	1.09	1.08	1.08	1.07	1.07	1.07	1.07	1.06	1.06	1.06	1.05	1.05	1.05	-1.1%
Biofuels Heat and Coproducts	0.78	0.78	0.80	0.84	0.84	0.84	0.84	0.84	0.85	0.85	0.85	0.85	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	-0.2%
Renewable Energy 16/	2.15	2.22	2.17	2.19	2.23	2.25	2.28	2.31	2.34	2.37	2.39	2.41	2.43	2.45	2.47	2.49	2.51	2.54	2.57	2.61	2.64	2.67	2.71	2.72	2.75	2.78	2.80	2.83	2.86	2.89	2.92	2.95	2.98	3.01	1.2%
Hydrogen	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	12.4%
Delivered Energy	**72.62**	**74.92**	**75.47**	**75.35**	**75.56**	**75.69**	**75.68**	**75.64**	**75.56**	**75.55**	**75.56**	**75.70**	**75.68**	**75.63**	**75.68**	**75.71**	**75.72**	**75.82**	**75.96**	**76.18**	**76.48**	**76.87**	**77.17**	**77.49**	**77.84**	**78.16**	**78.51**	**78.94**	**79.45**	**79.91**	**80.42**	**80.98**	**81.39**	**81.89**	**0.3%**
Electricity Related Losses	24.79	25.21	24.79	24.83	24.51	24.20	23.96	23.90	23.74	23.60	23.51	23.49	23.56	23.54	23.51	23.34	23.31	23.28	23.32	23.40	23.44	23.51	23.59	23.66	23.70	23.75	23.81	23.90	23.99	24.10	24.25	24.38	24.52	24.66	-0.1%
Total	**97.41**	**100.13**	**100.26**	**100.18**	**100.06**	**99.89**	**99.64**	**99.54**	**99.30**	**99.15**	**99.07**	**99.19**	**99.23**	**99.16**	**99.19**	**99.06**	**99.04**	**99.10**	**99.27**	**99.58**	**99.92**	**100.37**	**100.76**	**101.15**	**101.55**	**101.92**	**102.33**	**102.84**	**103.44**	**104.02**	**104.67**	**105.35**	**105.91**	**106.55**	**0.2%**
Electric Power 19/																																			
Distillate Fuel Oil	0.05	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	-1.3%
Residual Fuel Oil	0.16	0.09	0.09	0.09	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-4.8%
Petroleum and Other Liquids Subtotal	0.22	0.18	0.17	0.17	0.13	0.13	0.13	0.13	0.12	0.12	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	-2.6%
Natural Gas	9.53	10.74	10.85	11.33	11.26	11.38	11.33	11.19	11.16	11.53	11.59	11.66	11.51	11.43	11.56	11.87	11.88	11.94	11.97	11.96	12.00	11.98	11.96	12.06	12.07	12.18	12.20	12.30	12.39	12.41	12.39	12.49	12.49	12.55	0.5%
Steam Coal	12.63	12.04	11.43	10.80	10.40	10.30	10.30	10.40	10.34	10.21	10.10	10.04	10.23	10.26	10.10	9.79	9.79	9.66	9.65	9.64	9.57	9.55	9.54	9.55	9.48	9.46	9.43	9.44	9.46	9.46	9.48	9.50	9.51	9.52	-0.7%
Nuclear / Uranium 20/	8.42	8.46	8.34	8.21	7.97	7.57	7.29	7.30	7.03	6.94	6.94	6.94	6.94	6.95	6.95	6.84	6.85	6.86	6.87	6.88	6.89	6.90	6.91	6.92	6.93	6.95	6.96	6.97	6.98	6.99	7.00	7.01	7.02	7.03	-0.6%
Renewable Energy 21/	6.25	6.43	6.56	7.08	7.61	7.79	7.97	8.02	8.08	8.09	8.13	8.18	8.30	8.36	8.47	8.47	8.50	8.60	8.72	8.90	9.07	9.27	9.49	9.54	9.73	9.78	9.97	10.04	10.12	10.36	10.63	10.76	11.01	11.21	1.8%
Non-biogenic Municipal Waste	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.0%
Electricity Imports	0.19	0.18	0.19	0.19	0.19	0.18	0.17	0.17	0.17	0.17	0.18	0.20	0.20	0.21	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.2%
Total	**37.36**	**38.16**	**37.67**	**37.91**	**37.69**	**37.47**	**37.32**	**37.34**	**37.26**	**37.19**	**37.18**	**37.25**	**37.42**	**37.45**	**37.50**	**37.41**	**37.46**	**37.50**	**37.63**	**37.81**	**37.95**	**38.13**	**38.32**	**38.49**	**38.64**	**38.79**	**38.96**	**39.16**	**39.37**	**39.62**	**39.89**	**40.15**	**40.42**	**40.70**	**0.2%**
Total Energy Consumption																																			
Liquefied Petroleum Gases and Other 6/	3.45	3.77	3.87	3.75	3.95	4.04	4.09	4.16	4.20	4.23	4.31	4.35	4.42	4.44	4.49	4.53	4.57	4.56	4.59	4.62	4.63	4.69	4.72	4.73	4.76	4.80	4.79	4.82	4.84	4.87	4.89	4.94	4.95	4.98	0.9%
Motor Gasoline 3/	17.21	17.22	17.24	17.04	16.75	16.44	16.09	15.71	15.32	15.01	14.73	14.48	14.22	13.98	13.77	13.57	13.38	13.22	13.07	12.95	12.86	12.80	12.75	12.72	12.71	12.71	12.73	12.75	12.78	12.84	12.90	12.96	13.00	13.04	-0.9%
of which: E85 11/	0.01	0.04	0.04	0.05	0.06	0.07	0.07	0.10	0.14	0.14	0.16	0.17	0.19	0.21	0.21	0.21	0.22	0.23	0.24	0.24	0.25	0.25	0.25	0.25	0.23	0.22	0.21	0.20	0.19	0.16	0.13	0.11	0.11	0.11	3.1%
Jet Fuel 12/	3.48	3.58	3.68	3.68	3.66	3.69	3.70	3.73	3.76	3.80	3.83	3.88	3.92	3.95	3.99	4.03	4.07	4.11	4.15	4.18	4.22	4.26	4.30	4.33	4.37	4.41	4.45	4.49	4.54	4.58	4.63	4.68	4.72	4.77	0.9%
Kerosene 16/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.1%
Distillate Fuel Oil 1/	8.32	8.67	8.79	8.87	8.74	8.65	8.62	8.59	8.56	8.53	8.47	8.42	8.37	8.33	8.28	8.23	8.18	8.15	8.16	8.15	8.16	8.16	8.16	8.15	8.16	8.16	8.17	8.20	8.22	8.25	8.28	8.31	8.33	8.36	-0.1%
Residual Fuel Oil	0.92	0.81	0.87	0.55	0.57	0.71	0.73	0.74	0.75	0.74	0.72	0.72	0.72	0.70	0.70	0.69	0.69	0.69	0.65	0.65	0.64	0.64	0.63	0.63	0.63	0.62	0.63	0.62	0.61	0.61	0.61	0.61	0.61	0.61	-0.9%
Petrochemical Feedstocks	0.70	0.66	0.70	0.73	0.77	0.82	0.86	0.90	0.93	0.95	0.98	1.02	1.06	1.06	1.10	1.13	1.15	1.15	1.16	1.18	1.19	1.21	1.23	1.24	1.25	1.27	1.27	1.28	1.29	1.30	1.31	1.34	1.34	1.36	2.3%
Other Petroleum 17/	3.56	3.63	3.66	3.64	3.57	3.49	3.45	3.39	3.37	3.34	3.32	3.36	3.34	3.37	3.42	3.43	3.44	3.52	3.54	3.54	3.65	3.68	3.70	3.75	3.79	3.80	3.86	3.93	3.99	4.05	4.10	4.14	4.17	4.21	0.5%
Petroleum and Other Liquids Subtotal	37.64	38.34	38.80	38.26	38.02	37.85	37.54	37.21	36.89	36.60	36.39	36.24	36.04	35.85	35.73	35.61	35.48	35.39	35.30	35.28	35.35	35.43	35.49	35.57	35.68	35.77	35.90	36.09	36.27	36.49	36.72	36.98	37.13	37.34	-0.1%
Natural Gas	25.70	27.79	27.86	28.38	28.53	28.80	28.88	28.83	29.04	29.28	29.40	29.59	29.47	29.44	29.62	29.99	30.03	30.14	30.26	30.34	30.47	30.58	30.65	30.85	30.97	31.18	31.29	31.49	31.75	31.85	31.95	32.18	32.30	32.48	0.5%
Natural-Gas-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Lease and Plant Fuel 8/	1.63	1.81	1.94	2.03	2.07	2.11	2.14	2.17	2.20	2.26	2.28	2.29	2.30	2.30	2.32	2.33	2.34	2.36	2.37	2.39	2.40	2.42	2.43	2.46	2.45	2.45	2.45	2.45	2.44	2.44	2.43	2.43	2.42	2.42	0.9%
Natural Gas to Liquefy Gas for Export 9/	0.07	0.11	0.20	0.28	0.30	0.30	0.34	0.39	0.43	0.47	0.49	0.51	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	5.0%
Pipeline and Distribution Fuel Natural Gas	0.68	0.70	0.69	0.67	0.66	0.65	0.64	0.64	0.65	0.66	0.66	0.67	0.68	0.68	0.69	0.69	0.70	0.70	0.70	0.70	0.70	0.70	0.71	0.71	0.72	0.72	0.73	0.73	0.74	0.74	0.75	0.75	0.76	0.76	0.3%
Natural Gas Subtotal	28.08	30.42	30.69	31.36	31.56	31.87	32.00	32.03	32.33	32.66	32.83	33.07	32.97	32.96	33.16	33.55	33.59	33.72	33.86	33.96	34.10	34.23	34.33	34.55	34.67	34.89	34.99	35.20	35.46	35.56	35.66	35.89	36.01	36.20	0.5%
Metallurgical Coal	0.50	0.55	0.58	0.53	0.50	0.49	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.49	0.49	0.49	0.48	0.48	0.48	0.48	0.48	0.47	0.47	-0.5%
Other Coal	13.29	12.64	12.02	11.41	11.03	10.94	10.95	11.05	11.00	10.87	10.75	10.69	10.87	10.90	10.73	10.41	10.41	10.28	10.25	10.25	10.17	10.15	10.14	10.14	10.08	10.06	10.02	10.03	10.07	10.05	10.07	10.09	10.10	10.11	-0.7%
Coal-to-Liquids Heat and Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Net Coal Coke Imports	-0.03	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	--
Coal Subtotal	13.76	13.17	12.58	11.92	11.51	11.41	11.41	11.51	11.47	11.33	11.22	11.16	11.34	11.37	11.21	10.89	10.89	10.76	10.73	10.73	10.66	10.64	10.62	10.63	10.56	10.54	10.50	10.51	10.55	10.53	10.54	10.56	10.56	10.57	-0.7%
Nuclear / Uranium 20/	8.42	8.46	8.34	8.21	7.97	7.57	7.29	7.30	7.03	6.94	6.94	6.94	6.94	6.95	6.95	6.84	6.85	6.86	6.87	6.88	6.89	6.90	6.91	6.92	6.93	6.95	6.96	6.97	6.98	6.99	7.00	7.01	7.02	7.03	-0.6%
Biofuels Heat and Coproducts	0.78	0.78	0.80	0.84	0.84	0.84	0.84	0.84	0.85	0.85	0.85	0.85	0.85	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.2%
Renewable Energy 22/	**8.40**	**8.65**	**8.73**	**9.28**	**9.83**	**10.04**	**10.25**	**10.33**	**10.42**	**10.46**	**10.52**	**10.59**	**10.74**	**10.82**	**10.93**	**10.96**	**11.01**	**11.15**	**11.29**	**11.51**	**11.71**	**11.94**	**12.19**	**12.26**	**12.48**	**12.56**	**12.77**	**12.87**	**12.98**	**13.25**	**13.55**	**13.71**	**13.99**	**14.21**	**1.6%**
Hydrogen	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	12.4%
Non-biogenic Municipal Waste	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.0%
Electricity Imports	0.19	0.18	0.19	0.19	0.19	0.18	0.17	0.17	0.17	0.17	0.18	0.20	0.20	0.21	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.2%
Total	97.41	100.13	100.26	100.18	100.06	99.89	99.64	99.54	99.30	99.15	99.07	99.19	99.23	99.16	99.19	99.06	99.04	99.10	99.27	99.58	99.92	100.37	100.76	101.15	101.55	101.92	102.33	102.84	103.44	104.02	104.67	105.35	105.91	106.55	0.2%

Energy Use & Related Statistics

Delivered Energy Use	72.62	74.92	75.47	75.35	75.56	75.69	75.68	75.64	75.56	75.55	75.56	75.70	75.68	75.63	75.68	75.71	75.72	75.82	75.96	76.18	76.48	76.87	77.17	77.49	77.84	78.16	78.51	78.94	79.45	79.91	80.42	80.98	81.39	81.89	0.3%
Total Energy Use	97.41	100.13	100.26	100.18	100.06	99.89	99.64	99.54	99.30	99.15	99.07	99.19	99.23	99.16	99.19	99.06	99.04	99.10	99.27	99.58	99.92	100.37	100.76	101.15	101.55	101.92	102.33	102.84	103.44	104.02	104.57	105.35	105.91	106.55	0.2%
Ethanol Consumed in Motor Gasoline and E85	1.23	1.22	1.23	1.23	1.23	1.22	1.22	1.21	1.21	1.19	1.18	1.17	1.17	1.16	1.15	1.13	1.12	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.13	1.14	1.14	1.14	1.15	1.17	1.17	-0.1%
Population (millions)	325.92	328.36	330.70	333.05	335.39	337.71	340.01	342.29	344.54	346.76	348.96	351.11	353.23	355.30	357.32	359.30	361.24	363.12	364.96	366.75	368.51	370.22	371.89	373.53	375.13	376.71	378.26	379.78	381.29	382.79	384.28	385.76	387.24	388.73	0.5%
Gross Domestic Product (billion 2009 dollars)	17,096	17,582	18,099	18,487	18,792	19,102	19,413	19,750	20,116	20,495	20,893	21,315	21,726	22,157	22,592	23,014	23,459	23,910	24,348	24,790	25,245	25,713	26,188	26,675	27,162	27,671	28,192	28,718	29,261	29,801	30,361	30,910	31,460	32,006	1.9%
Carbon Dioxide Emissions (million metric tons carbon dioxide)	5,147.0	5,249.7	5,216.5	5,115.7	5,050.2	5,038.0	5,014.9	4,994.3	4,976.7	4,958.6	4,935.1	4,927.3	4,919.8	4,903.0	4,884.8	4,861.8	4,851.1	4,837.8	4,830.1	4,830.2	4,831.5	4,837.7	4,841.1	4,855.8	4,860.3	4,872.3	4,882.7	4,901.6	4,927.3	4,941.6	4,960.3	4,985.7	4,999.0	5,019.4	0.1%

1/ Includes residential use of kerosene

2/ Includes wood used for residential heating. See Table 4 and/or Table 17 for estimates of nonmarketed renewable energy consumption for geothermal heat pumps, solar thermal water heating, and electricity generation from wind and solar photovoltaic sources.

3/ Includes ethanol and ethers blended into gasoline.

4/ Excludes ethanol. Includes commercial sector consumption of wood and wood waste, landfill gas, municipal waste, and other biomass for combined heat and power. See Table 5 and/or Table 17 for estimates of nonmarketed renewable energy consumption for solar thermal water heating and electricity generation from wind and solar photovoltaic sources.

5/ Includes energy for combined heat and power plants that have a non-regulatory status, and small on-site generating systems.

6/ Includes ethane, natural gasoline, and refinery olefins.

7/ Includes petroleum coke, asphalt, road oil, lubricants, still gas, and miscellaneous petroleum products.

8/ Represents natural gas used in well, field, and lease operations, and in natural gas processing plant machinery.

9/ Fuel used in facilities that liquefy natural gas for export.

10/ Includes consumption of energy produced from conventional hydroelectric, wood and wood waste, municipal waste, and other biomass sources. Excludes ethanol in motor gasoline.

11/ E85 refers to a blend of 85 percent ethanol (renewable) and 15 percent motor gasoline (nonrenewable). To address cold starting issues, the percentage of ethanol varies seasonally. The annual average ethanol content of 74 percent is used for these projections.

12/ Includes only kerosene type.

13/ Diesel fuel for on- and off- road use.

14/ Includes aviation gasoline and lubricants.

15/ Represents consumption unattributed to the sectors above.

16/ Does not include residential use of kerosene.

17/ Includes aviation gasoline, petroleum coke, asphalt, road oil, lubricants, still gas, and miscellaneous petroleum products.

18/ Includes electricity generated for sale to the grid and for own use from renewable sources, and non-electric energy from renewable sources. Excludes ethanol and nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal water heaters.

19/ Includes consumption of energy by electricity-only and combined heat and power plants that have a regulatory status.

20/ These values represent the energy obtained from uranium when it is used in light water reactors. The total energy content of uranium is much larger, but alternative processes are required to take advantage of it.

21/ Includes conventional hydroelectric, geothermal, wood and wood waste, biogenic municipal waste, other biomass, wind, photovoltaic, and solar thermal sources. Excludes net electricity imports.

22/ Includes conventional hydroelectric, geothermal, wood and wood waste, biogenic municipal waste, other biomass, wind, photovoltaic, and solar thermal sources. Excludes ethanol, net electricity imports, and nonmarketed renewable energy consumption for geothermal heat pumps, buildings photovoltaic systems, and solar thermal water heaters.

Btu = British thermal unit.

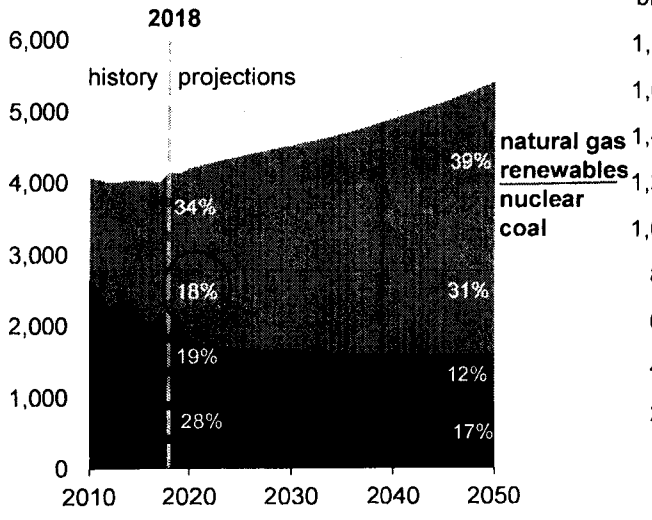
- = Not applicable.

Note: Includes estimated consumption for petroleum and other liquids. Totals may not equal sum of components due to independent rounding. Data for 2017 are model results and may differ from official EIA data reports.

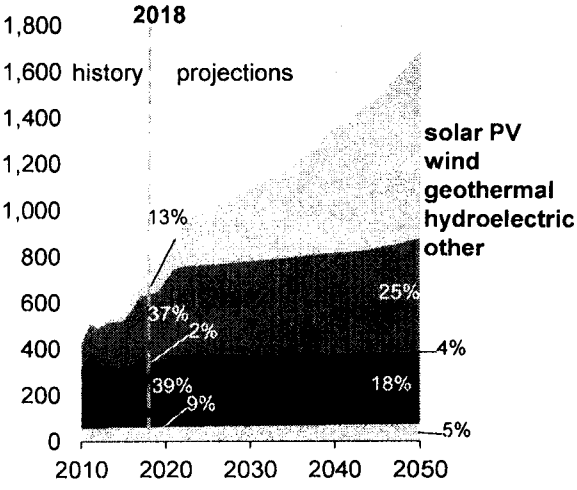
Sources: 2017 consumption based on: U.S. Energy Information Administration (EIA), Monthly Energy Review, September 2018. 2017 population and gross domestic product: IHS Markit, Macroeconomic model, August 2018. 2017 carbon dioxide emissions and emission factors: EIA, Monthly Energy Review, September 2018.
2018: EIA, Short-Term Energy Outlook, October 2018 and E.A. AEO2019 National Energy Modeling System run ref2019.d111618a.
Projections: E.A. AEO2019 National Energy Modeling System run ref2019.d111618a.

Electricity generation from natural gas and renewables increases, and the shares of nuclear and coal generation decrease

Electricity generation from selected fuels (Reference case)
billion kilowatthours



Renewable electricity generation, including end-use (Reference case)
billion kilowatthours



—as lower natural gas prices and declining costs of renewable capacity make these fuels increasingly competitive

- The continuing decline in natural gas prices and increasing penetration of renewable electricity generation have resulted in lower wholesale electricity prices, changes in utilization rates, and operating losses for a large number of baseload coal and nuclear generators.

- Generation from both coal and nuclear is expected to decline in all cases. In the Reference case, from a 28% share in 2018, coal generation drops to 17% of total generation by 2050. Nuclear generation declines from a 19% share of total generation in 2018 to 12% by 2050. The share of natural gas generation rises from 34% in 2018 to 39% in 2050, and the share of renewable generation increases from 18% to 31%.

- Assumptions of declining costs and improving performance make wind and solar increasingly competitive compared with other renewable resources in the Reference case. Most of the wind generation increase occurs in the near term, when new projects enter service ahead of the expiration of key federal production tax credits.

- Solar Investment Tax Credits (ITC) phase down after 2024, but solar generation growth continues because the costs for solar continue to fall faster than for other sources.

六、联合国环境规划署《全球绿色新政——匹兹堡G20峰会更新》（2009年9月）

Global Green New Deal

An Update for the G20 Pittsburgh Summit

September 2009

About UNEP

The United Nations Environment Programme (UNEP) is the overall coordinating environmental organization of the United Nations system. Its mission is to provide leadership and encourage partnerships in caring for the environment by inspiring, informing and enabling nations and people to improve their quality of life without compromising that of future generations.

About GEI

www.unep.org/greeneconomy

The Green Economy Initiative (GEI) is designed to assist governments in "greening" their economies by reshaping and refocusing policies, investments and spending towards a range of sectors, such as clean technologies, renewable energies, water services, green transportation, waste management, green buildings and sustainable agriculture and forests.

Greening the economy refers to the process of reconfiguring businesses and infrastructure to deliver better returns on natural, human and economic capital investments, while at the same time reducing greenhouse gas emissions, extracting and using less natural resources, creating less waste and reducing social disparities.

Initially envisioned as a two-year project, the GEI has been expanded to include a number of related UNEP and UN-wide initiatives focused on providing macroeconomic evidence for significantly increasing investments in the environment as a means of promoting sustainable economic growth, decent job creation, and poverty reduction.

About this Update

This update report was completed under the overall direction of Pavan Sukhdev, project leader of the Green Economy Initiative (GEI), with research inputs from Nick Robins, Head of HSBC Climate Change Centre. The update was coordinated at UNEP by Derek Eaton with inputs from Fatma Ben Fadhl, Nicolas Bertrand, Karin Bieri, Moustapha Kamal Gueye, Anna Iturrizza, Fulai Sheng, and Benjamin Simmons.

Beyond recovery: Investment and policy reform towards a green economy

In March 2009, South Africa announced that it would put in place a binding climate change policy within three years to cap emission growth by 2020-25. Measures contained in the plan include a regulatory, fiscal and legislative framework that would make tracking and reporting of emissions mandatory.

In September 2009, South Africa released a document entitled, "Green Paper: National Strategic Planning." This policy paper seeks to put in place a planning process that sets out clear long-term energy options, including outlining targets for greenhouse gas emission reductions and targets for the energy intensity of the economy in general. The Green Paper notes that "our understanding of the objectives of society has become more clearly expressed: social, environmental and political dimensions have been added to the economic concept of development"[17]. A National Planning Commission will also be established, consisting of independent experts and strategic thinkers, to contribute to mainstreaming the environment in the development process, and to initiating the transition to a green economy.

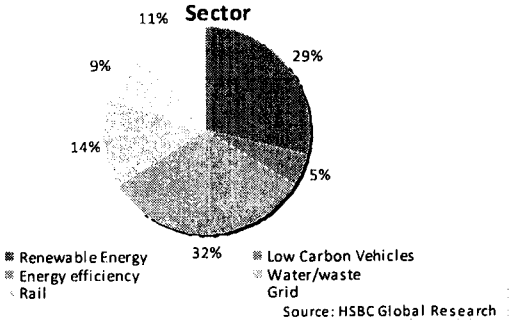
South Africa plans to generate some 15 per cent of its electricity from renewable sources by 2020 and enhance energy efficiency. The South African government is also considering the introduction of a long-term, escalating carbon tax to help curb GHG emissions, particularly from coal-fired power plants. Moreover, in June 2009, the Finance Minister stressed the pursuit of economic stimulus measures with plans for the government and its utilities to spend US$ 96.7 (787 billion rand) over the next three years building and upgrading infrastructure.[18]

United States of America

Green stimulus

Provisions for the United States' stimulus packages are contained in two laws; namely, the Emergency Economic Stabilization Act (EESA) of October 2008 and the American Recovery and Reinvestment Act (ARRA) of February 2009. The EESA includes US$ 185 billion in tax cuts and credits, including US$ 18.2 billion for clean energy. The ARRA includes an estimated US$ 94 billion of "green spending" out of a total of US$ 787 billion (or 12 per cent), including on energy efficiency, renewable energy, water and waste, mass transit and rail (figure).

United States' Green Stimulus Spending per Sector



Source: HSBC Global Research

In addition, the proposed federal budget for 2010 includes US$ 4.9 billion to be allocated to a high-speed rail state grant, the Environmental Protection Agency's Clean Water State Revolving Fund and the Drinking Water State Revolving Fund.

Combined, green investments in the two stimulus packages together with those of the proposed budget amount to over US$ 117 billion, or 12 per cent of the total.

A Recovery Accountability and Transparency Board was established to oversee ARRA spending and this information is made available online[19]. HSBC estimates that 70 per cent of the green stimulus will be spent over the next four years, with the bulk of spending in 2010 and 2011[20]. As of July, spending seemed so far to be in line with those expectations[21].

Beyond recovery: Investment and policy reform towards a green economy

Many of the new US Administration's green priorities are outlined in the proposed 2010 Budget which presents a programme for creating jobs and investing in "long-term economic growth". This includes a proposal to create a "Clean Energy Economy"; a comprehensive energy and climate change plan to invest in clean energy, decrease dependence on oil, address the global climate crisis, and create new jobs[22]. Some of proposed initiatives, such as using the federal Title XVII Loan Guarantee (of the Energy and Policy Act of 2005) to Reduce Greenhouse Gas Emissions, clearly respond to the call to develop a positive incentive framework for the green economy.

Recent legislative developments include the proposed Waxman-Markey American Clean Energy and Security Act of 2009 (ACESA) which includes a cap-and-trade GHG reduction plan.[23] Combined with the ARRA, this could create an estimated 1.7 million new jobs.[24]

From green stimulus to sustained growth of the green economy

The review of country experiences with green stimulus packages reveals that much more needs to be done if the G20 is to follow through on its commitment to accelerate the transition to the Green Economy.

UNEP reiterates its Global Green New Deal call, and urges G20 governments to invest US$ 750 billion of the US$ 2.5 trillion stimulus package (about 1 per cent of global GDP) towards building a green economy – one that reduces carbon dependency, addresses poverty, generates good quality and decent jobs, maintains and restores our natural ecosystems, and moves towards sustainable consumption.

While UNEP supports the progress that has been made in stimulating a low carbon economy through investments in a range of initiatives such as improved rail transportation, water infrastructure, grid expansion and improved building efficiency, in many cases there remain large gaps between government declarations and practice.

The effectiveness of the green stimulus risks being compromised by delays in the allocation of funds. At the end of the first half of 2009, only around 3 per cent of committed green funds had been disbursed. Moreover, many G20 members have not included sufficient green investments in their overall stimulus packages.

Overall, the amount allocated to renewable energy falls short of the investment needed to reduce carbon emissions and to keep the rise in global average temperature under two degrees Celsius. Some incentives, such as subsidies to the production and consumption of fossil fuels, are working against efforts to build a sustainable future.

Furthermore, while developing countries did not cause the economic and financial crisis, they have been severely affected by it. Development assistance to poor countries has fallen in real terms over the past decade, and millions more vulnerable people will be trapped in poverty this year because of the recession and the effects of climate change, undermining efforts to achieve the Millennium

附件十

美国聚氯乙烯对外出口统计资料及美国聚氯乙烯结构正常价值的有关证据

一、美国聚氯乙烯对外出口统计资料（作保密处理）

二、美国乙烯对外出口统计资料（作保密处理）

三、美国韦斯特莱克化学公司、西方化学公司以及日本信越公司、台湾塑胶工业股份有限公司2019年度财务报告的有关摘要

一、美国聚氯乙烯对外出口统计资料

（作保密处理）

Report Name	20190605134611011400
Report Type	Exports
Reporting Countr	United States
Date Range	2018
Frequency	Yearly
Quantity #1	Kilograms
Currency	US Dollar(USD)
Creation Date	05 June 2019 13:46 (Central European Summer Time)
Harmonized Code	Valid from Commodity descriptions
US 3904100000	2017 onwards POLYVINYL CHLORIDE,NOT MIXED WITH ANY OTHER SUBSTANCES

Country Code	Partner Country/region	Total Export value	Total Export quantity 1	Total Export price for quantity 1
404	Canada	448076891	489083417	0.916
720	China (People's Republic of)	274325836	326253558	0.841
412	Mexico	219965735	231767647	0.949
220	Egypt	185155932	223327789	0.829
504	Peru	86880578	99808737	0.87
288	Nigeria	75877489	87201634	0.87
647	United Arab Emirates	73056815	86613224	0.843
664	India	69648800	82320498	0.846
512	Chile	66299095	75029241	0.884
500	Ecuador	62582844	71594173	0.874
480	Colombia	52310551	57734130	0.906
416	Guatemala	50734121	61543119	0.824
052	Turkey	42949582	50171505	0.856
690	Viet-Nam	40361794	48941884	0.825
632	Saudi Arabia	36431834	43948102	0.829
436	Costa Rica	35502097	41269298	0.86
005	Italy	34991505	37938163	0.922
272	Côte d'Ivoire	34376191	41665881	0.825
208	Algeria	33477444	40103837	0.835
456	Dominican Republic	33143430	37460188	0.885
728	Korea (Rep. of)	33140149	39257370	0.844
644	Qatar	28965226	33633747	0.861
017	Belgium	28833562	24072626	1.198
072	Ukraine	27040703	32195501	0.84
212	Tunisia	27032188	33837808	0.799
346	Kenya	26458081	30344321	0.872
649	Oman	25333867	30245631	0.838
276	Ghana	25322460	28303688	0.895
006	United Kingdom	24632706	37116088	0.664
676	Myanmar	23828939	27919503	0.853
662	Pakistan	18164919	21259863	0.854
624	Israel	17916415	20593362	0.87
800	Australia	16521718	19647230	0.841
528	Argentina	15703490	16619399	0.945
669	Sri Lanka	15536886	19211480	0.809
442	Panama	15331729	17838669	0.859
636	Kuwait	14244530	16651698	0.855
508	Brazil	13466321	10678719	1.261
524	Uruguay	12316113	13991009	0.88
076	Georgia	11927655	14468115	0.824
604	Lebanon	11561001	13795649	0.838
010	Portugal	11305711	12893122	0.877
680	Thailand	10868383	9127746	1.191
011	Spain	10782910	12419019	0.868
060	Poland	10365818	14112693	0.735
068	Bulgaria	9941104	11337995	0.877
640	Bahrain	9884963	12073800	0.819
001	France	9804836	11131548	0.881
472	Trinidad and Tobago	9027620	10034538	0.9
701	Malaysia	7767499	9534333	0.815
248	Senegal	7567236	9495150	0.797
804	New Zealand	6651167	8020956	0.829
007	Ireland	6050760	6338702	0.955
009	Greece	5807318	6577817	0.883
388	South Africa	5298187	5835350	0.908
666	Bangladesh	5250125	6014516	0.873
428	El Salvador	4723283	5325846	0.887
302	Cameroon	4398284	5242752	0.839
204	Morocco	4286228	4691227	0.914

520	Paraguay	4165907	4502162	0.925
628	Jordan	3891226	4639317	0.839
216	Libyan Arab Jamahiriya	3489692	3690073	0.946
004	Germany	3465912	3785371	0.916
740	Hong Kong	3248526	2804295	1.158
653	Yemen	3137347	3536886	0.887
706	Singapore	3135587	2680220	1.17
352	Tanzania (United Rep. of)	3010544	3387060	0.889
350	Uganda	2836037	3343380	0.848
260	Guinea	2360570	2669827	0.884
708	Philippines	1989687	2305461	0.863
280	Togo	1977803	2147245	0.921
732	Japan	1730900	968303	1.788
003	Netherlands	1653586	1898171	0.871
091	Slovenia	1642007	758620	2.164
092	Croatia	1478876	1643196	0.9
736	Taiwan	1377049	1863411	0.739
039	Switzerland	1182720	1422735	0.831
484	Venezuela	1121341	1136832	0.986
488	Guyana	1116342	1261676	0.885
232	Mali	1082129	1225000	0.883
077	Armenia	1075985	1223271	0.88
066	Romania	1075754	1154693	0.932
284	Benin	1072068	1342778	0.798
322	Congo (Dem. Rep. of)	904301	1080900	0.837
424	Honduras	893884	908121	0.984
612	Iraq	765276	876611	0.873
268	Liberia	740239	888393	0.833
075	Russian Federation	661151	789800	0.837
625	ccupied Palestinian Territor	612906	691324	0.887
373	Mauritius	592458	681625	0.869
228	Mauritania	571285	631125	0.905
070	Albania	547670	646039	0.848
459	Antigua and Barbuda	474921	512852	0.926
366	Mozambique	453575	520242	0.872
492	Suriname	431038	382008	1.128
370	Madagascar	427517	461500	0.926
314	Gabon	387561	430679	0.9
252	Gambia	373230	419875	0.889
386	Malawi	314710	396000	0.795
334	Ethiopia	304191	531705	0.572
098	Serbia	262841	290225	0.906
240	Niger	255468	311499	0.82
078	Azerbaijan	253378	312500	0.811
391	Botswana	220605	231000	0.955
318	Congo	214660	284250	0.755
421	Belize	184221	56443	3.264
672	Nepal	177598	192250	0.924
700	Indonesia	142742	95192	1.5
432	Nicaragua	135293	85685	1.579
469	Barbados	129422	30116	4.297
453	Bahamas	129180	63085	2.048
024	Iceland	103684	91010	1.139
452	Haiti	99689	164983	0.604
467	St Vincent and the Grenadine	98498	75691	1.301
338	Djibouti	97690	126000	0.775
064	Hungary	84350	40280	2.094
822	French Polynesia	82449	105000	0.785
468	Virgin Islands (British)	80226	4591	17.475
018	Luxembourg	75200	80000	0.94
032	Finland	61102	46750	1.307
306	Central African Republic	58860	72000	0.818
463	Cayman Islands	48007	16539	2.903

378	Zambia	38335	46750	0.82
478	Netherlands Antilles	37401	13147	2.845
413	Bermuda	37073	12338	3.005
247	Cape-Verde	34920	36000	0.97
464	Jamaica	33744	10826	3.117
516	Bolivia	30104	46326	0.65
449	St Kitts and Nevis	25406	1844	13.778
660	Afghanistan	24676	1797	13.732
264	Sierra Leone	20020	26513	0.755
474	Aruba	18029	2193	8.221
038	Austria	18029	5015	3.595
473	Grenada	13746	11285	1.218
460	Dominica	12500	10135	1.233
446	Anguilla	6882	4000	1.72
454	Turks and Caicos Islands	5235	2113	2.478
030	Sweden	3726	26	143.308
061	Czech Republic	0	0	0
9999	Total	2594337151	2964908790	0.875

二、美国乙烯对外出口统计资料

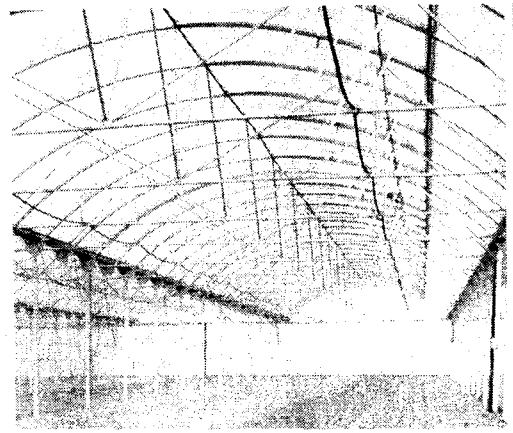
（作保密处理）

Report Name	20200824060213691247	
Report Type	Exports	
Reporting Country	United States	
Date Range	2019	
Frequency	Yearly	
Quantity #1	Kilograms	
Currency	US Dollar(USD)	
Creation Date	24 August 2020 06:02 (Central European Summer Time)	
Harmonized Code	Valid from	Commodity descriptions
US 2901210000	2017 onwards	ETHYLENE (ETHENE)

Country Code	Partner Country/region	Total Export value	Total Export quantity 1	Total Export price for quantity 1
528	Argentina	23658795	34984323	0.676
800	Australia	17852	392	45.541
017	Belgium	59431125	100383932	0.592
508	Brazil	140098	30147	4.647
404	Canada	151431	247252	0.612
512	Chile	3701	3598	1.029
720	China (People's Republic of)	4546108	7745713	0.587
480	Colombia	7501711	10847271	0.692
436	Costa Rica	35200	8800	4
310	Equatorial Guinea	184691	232041	0.796
004	Germany	126836	21524	5.893
473	Grenada	5600	568	9.859
424	Honduras	17680	13880	1.274
740	Hong Kong	197090	9135	21.575
664	India	25724	1215	21.172
005	Italy	62696	4503	13.923
732	Japan	1521000	3001549	0.507
728	Korea (Rep. of)	4471499	8448935	0.529
412	Mexico	6572937	6472367	1.016
003	Netherlands	13125016	19708821	0.666
028	Norway	11070	6768	1.636
504	Peru	101852	28636	3.557
644	Qatar	9100	798	11.404
075	Russian Federation	51000	233	218.884
632	Saudi Arabia	214690	7050	30.452
011	Spain	16767345	23042846	0.728
030	Sweden	43530	3000	14.51
736	Taiwan	32459848	55517954	0.585
472	Trinidad and Tobago	2144301	1966919	1.09
052	Turkey	14885	12201	1.22
006	United Kingdom	71107	6160	11.543
9999	Total	173685518	272758531	0.637

三、美国韦斯特莱克化学公司、西方化学公司以及日本信越公司、台湾塑胶工业股份有限公司2019年度财务报告的有关摘要

Westlake



Item 6. Selected Financial and Operational Data [1]

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(dollars in millions, except share amounts, per share data and volume data)				
Statement of Operations Data:					
Net sales	$ 8,118	$ 8,635	$ 8,041	$ 5,076	$ 4,463
Gross profit	1,260	1,987	1,761	983	1,190
Selling, general and administrative expenses	458	445	399	258	218
Amortization of intangibles	109	101	108	38	7
Restructuring, transaction and integration-related costs	37	33	29	104	—
Income from operations	656	1,408	1,225	583	965
Interest expense	(124)	(126)	(159)	(79)	(35)
Other income, net	38	52	15	54	33
Income before income taxes	570	1,334	1,081	558	963
Provision for (benefit from) income taxes	108	300	(258)	138	298
Net income	462	1,034	1,339	420	665
Net income attributable to noncontrolling interests	41	38	35	21	19
Net income attributable to Westlake Chemical Corporation	$ 421	$ 996	$ 1,304	$ 399	$ 646
Earnings Per Share Attributable to Westlake Chemical Corporation:					
Basic	$ 3.26	$ 7.66	$ 10.05	$ 3.07	$ 4.88
Diluted	$ 3.25	$ 7.62	$ 10.00	$ 3.06	$ 4.86
Weighted average shares outstanding					
Basic	128,395,184	129,401,823	129,087,043	129,367,712	131,823,707
Diluted	128,757,293	129,985,753	129,540,013	129,974,822	132,301,812
Balance Sheet Data (end of period):					
Cash and cash equivalents	$ 728	$ 753	$ 1,531	$ 459	$ 663
Marketable securities	—	—	—	—	520
Working capital [2]	1,501	1,659	1,496	1,225	1,652
Total assets	13,261	11,602	12,076	10,890	5,569
Total long-term debt, net	3,445	2,668	3,127	3,679	758
Total Westlake Chemical Corporation stockholders' equity	5,860	5,590	4,874	3,524	3,266
Cash dividends declared per share	$ 1.0250	$ 0.9200	$ 0.8012	$ 0.7442	$ 0.6393
Other Operating Data:					
Cash flows from:					
Operating activities	$ 1,301	$ 1,409	$ 1,528	$ 867	$ 1,079
Investing activities	(1,954)	(754)	(652)	(2,563)	(1,006)
Financing activities	630	(1,427)	6	1,687	(287)
Depreciation and amortization	713	641	601	378	246
Capital expenditures	787	702	577	629	491
EBITDA [3]	1,407	2,101	1,841	1,015	1,244
External Sales Volume (millions of pounds):					
Olefins Segment					
Polyethylene	2,565	2,438	2,363	2,392	2,445
Styrene, feedstock and other	880	671	828	794	1,182
Vinyls Segment					
PVC, caustic soda and other	16,712	16,629	15,997	8,118	5,026
Building products	1,178	1,180	1,193	770	629

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

☑ Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

☐ Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2019

For the transition period from **to**

Commission File Number 1-9210

Occidental Petroleum Corporation

(Exact name of registrant as specified in its charter)

State or other jurisdiction of incorporation or organization	**Delaware**
I.R.S. Employer Identification No.	**95-4035997**
Address of principal executive offices	**5 Greenway Plaza, Suite 110 Houston, Texas**
Zip Code	**77046**
Registrant's telephone number, including area code	**(713) 215-7000**

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	**Trading Symbol**	**Name of Each Exchange on Which Registered**
Common Stock, $0.20 par value	OXY	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer	☑	Accelerated Filer	☐	Emerging Growth Company	☐
Non-Accelerated Filer	☐	Smaller Reporting Company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☑

The aggregate market value of the registrant's Common Stock held by nonaffiliates of the registrant was approximately $45.0 billion, computed by reference to the closing price on the New York Stock Exchange composite tape of $50.28 per share of Common Stock on June 28, 2019.

At January 31, 2020, there were 895,224,961 shares of Common Stock outstanding, par value $0.20 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement, relating to its 2020 Annual Meeting of Stockholders, are incorporated by reference into Part III of this Form 10-K.

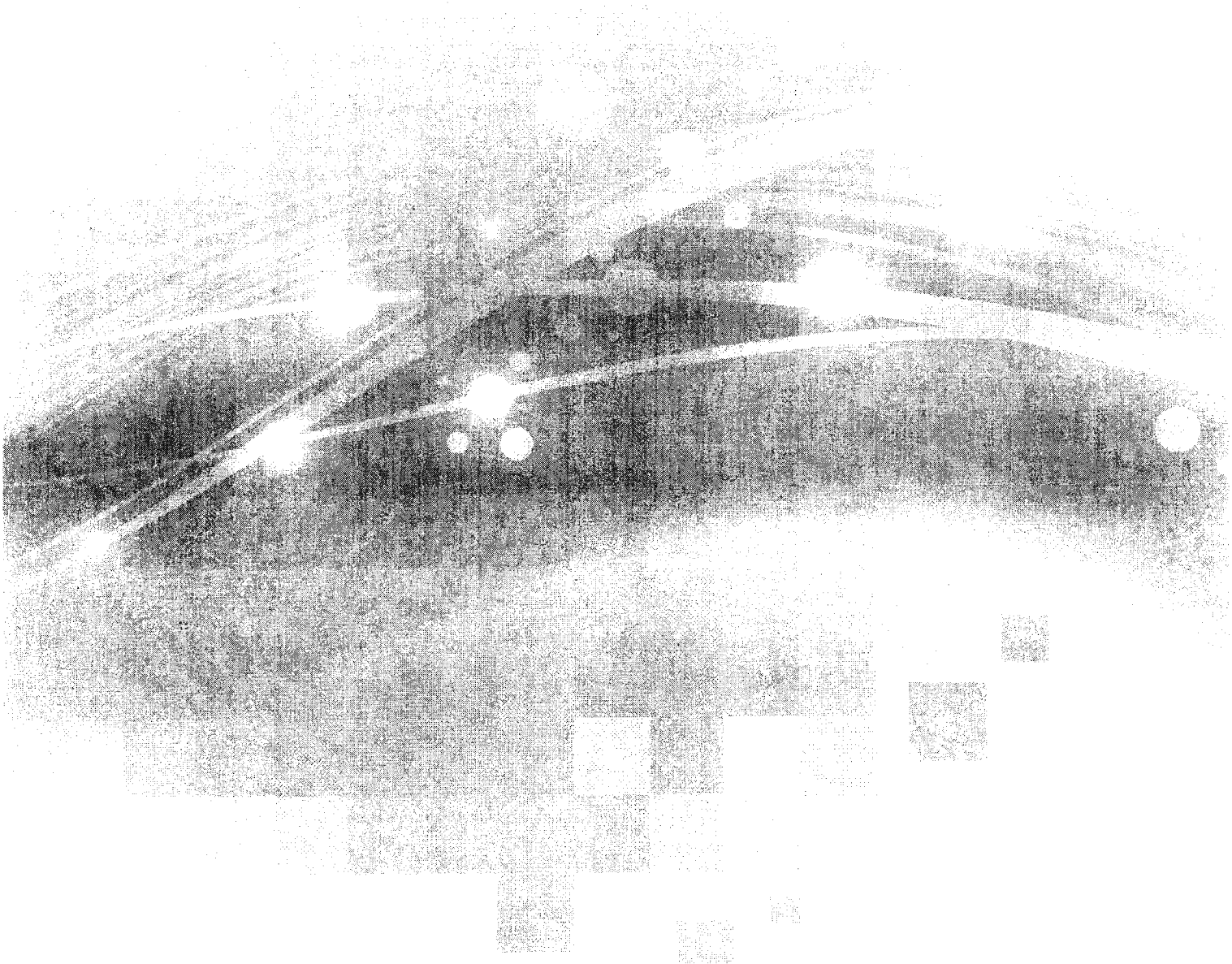
Quarterly Financial Data

Occidental Petroleum Corporation and Subsidiaries

millions except per-share amounts	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2019				
Segment net sales				
Oil and gas	$ 2,351	$ 2,718	$ 3,821	$ 4,533
Chemical	1,059	998	1,071	974
Marketing and Midstream[(a)]	816	909	1,163	1,244
Eliminations	(222)	(205)	(368)	(469)
Net sales	$ 4,004	$ 4,420	$ 5,687	$ 6,282
Gross profit	$ 1,210	$ 1,449	$ 1,422	$ 1,287
Segment earnings				
Oil and gas	$ 484	$ 726	$ 221	$ 921
Chemical	265	208	207	119
Marketing and Midstream[(a)]	279	331	400	(769)
Total segment earnings	$ 1,028	$ 1,265	$ 828	$ 271
Unallocated corporate items				
Interest expense, net	(83)	(143)	(360)	(416)
Income taxes	(225)	(306)	(116)	(46)
Other	(89)	(181)	(1,089)	(845)
Income (loss) from continuing operations	$ 631	$ 635	$ (737)	$ (1,036)
Discontinued operates, net of taxes	—	—	(15)	—
Net income (loss)	$ 631	$ 635	$ (752)	$ (1,036)
Less: Net income attributable to noncontrolling interests	—	—	(42)	(103)
Less: Preferred stock dividend	—	—	(118)	(200)
Net income (loss) attributable to common stockholders	$ 631	$ 635	$ (912)	$ (1,339)
Basic earnings (loss) per common share	$ 0.84	$ 0.84	$ (1.08)	$ (1.50)
Diluted earnings (loss) per common share	$ 0.84	$ 0.84	$ (1.08)	$ (1.50)
Dividends per common share	$ 0.78	$ 0.78	$ 0.79	$ 0.79
2018				
Segment net sales				
Oil and gas	$ 2,454	$ 2,531	$ 2,889	$ 2,567
Chemical	1,154	1,176	1,185	1,142
Marketing and Midstream	389	603	1,367	1,297
Eliminations	(234)	(227)	(225)	(244)
Net sales	$ 3,763	$ 4,083	$ 5,216	$ 4,762
Gross profit	$ 1,371	$ 1,556	$ 2,297	$ 1,616
Segment earnings				
Oil and gas	$ 750	$ 780	$ 767	$ 145
Chemical	298	317	321	223
Marketing and Midstream	179	250	1,698	675
Total segment earnings	$ 1,227	$ 1,347	$ 2,786	$ 1,043
Unallocated corporate items				
Interest expense, net	(92)	(91)	(92)	(81)
Income taxes	(339)	(302)	(710)	(126)
Other	(88)	(106)	(115)	(130)
Net income attributable to common stockholders	$ 708	$ 848	$ 1,869	$ 706
Basic earnings per common share	$ 0.92	$ 1.10	$ 2.44	$ 0.93
Diluted earnings per common share	$ 0.92	$ 1.10	$ 2.44	$ 0.93
Dividends per common share	$ 0.77	$ 0.77	$ 0.78	$ 0.78

(a) Marketing and Midstream segment net sales and earnings include the results of WES from the Acquisition date to the loss of control date.

Shin-Etsu



ANNUAL REPORT 2020

Chemistry at Work

Consolidated Statement of Income

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES
For the fiscal years ended March 31, 2019 and 2020

	Millions of yen		Millions of U.S. dollars
	2019	2020	2020
Net Sales	¥1,594,036	**¥1,543,525**	**$14,160**
Cost of Sales	1,039,979	**987,782**	**9,062**
Gross profit	554,057	**555,743**	**5,098**
Selling, General and Administrative Expenses	150,352	**149,702**	**1,373**
Operating income	403,705	**406,041**	**3,725**
Other Income (Expenses):			
Interest income	9,093	**10,777**	**98**
Dividend income	5,896	**7,388**	**67**
Equity in earnings (losses) of affiliates	4,669	**4,327**	**39**
Interest expenses	(746)	**(749)**	**(6)**
Foreign exchange gain (loss)	(217)	**(5,650)**	**(51)**
Other, net	(7,088)	**(3,892)**	**(35)**
Ordinary income	415,311	**418,242**	**3,837**
Extraordinary income:			
Gain on sales of investment securities	—	**7,774**	**71**
Income before income taxes and non-controlling interests	415,311	**426,017**	**3,908**
Income Taxes:			
Current	104,186	**108,290**	**993**
Deferred	(2,861)	**(564)**	**(5)**
Total Income Taxes	101,325	**107,726**	**988**
Net Income	313,986	**318,290**	**2,920**
Net Income Attributable to Non-Controlling Interests	(4,860)	**(4,263)**	**(39)**
Net Income Attributable to Owners of Parent	¥ 309,125	**¥ 314,027**	**$ 2,880**

		Yen	U.S. dollars
Earnings per Share:			
Net income attributable to owners of parent—basic	¥ 725.99	**¥ 755.17**	**$ 6.928**
Net income attributable to owners of parent—fully diluted	725.92	**755.01**	**6.927**
Cash dividends	200.00	**220.00**	**2.018**
Weighted-Average Number of Shares Outstanding (Thousands)	425,797	**415,838**	**415,838**

Consolidated Statement of Comprehensive Income

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES
For the fiscal years ended March 31, 2019 and 2020

	Millions of yen		Millions of U.S. dollars
	2019	2020	2020
Net Income	¥ 313,986	**¥ 318,290**	**$ 2,920**
Other Comprehensive Income:			
Unrealized gains (losses) on available-for-sale securities	(3,499)	**(12,732)**	**(116)**
Deferred gains (losses) on hedges	(1,928)	**(2,530)**	**(23)**
Foreign currency translation adjustments	(30,861)	**(13,642)**	**(125)**
Remeasurements of defined benefit plans	2,383	**(2,371)**	**(21)**
Share of other comprehensive income (loss) of affiliates accounted for using the equity method	(134)	**(125)**	**(1)**
Total other comprehensive income (loss)	(34,040)	**(31,401)**	**(288)**
Comprehensive Income	¥ 279,945	**¥ 286,889**	**$ 2,632**
(Breakdown)			
Comprehensive income attributable to owners of parent	¥ 276,632	**¥ 283,128**	**$ 2,597**
Comprehensive income attributable to non-controlling interests	3,312	**3,760**	**34**

股票代碼：1301

台灣塑膠工業股份有限公司及子公司

合併財務報告暨會計師查核報告

二〇一九年度及二〇一八年度

公司地址：高雄市仁武區水管路100號
電　　話：(07)371-1411
電　　話：(02)2712-2211

台灣塑膠工業股份有限公司及子公司

二〇一九年及二〇一八年一月一日至十二月三十一日

單位：新台幣千元

		2019年度		2018年度	
		金額	%	金額	%
4000	營業收入(附註六(十八)及七)	$ 207,848,572	100	230,370,027	100
5000	營業成本(附註六(五)(七)(八)(十四)(十九)及七)	175,734,622	85	193,061,959	84
	營業毛利	32,113,950	15	37,308,068	16
	營業費用(附註六(三)(七)(八)(十四)(十九)及七)：				
6100	推銷費用	6,071,615	3	6,114,350	3
6200	管理費用	4,601,134	2	4,713,287	2
6300	研究發展費用	1,246,402	-	1,138,174	-
6450	預期信用減損損失(利益)損失	(1,567)	-	945	-
	營業費用合計	11,917,584	5	11,966,756	5
	營業淨利	20,196,366	10	25,341,312	11
	營業外收入及支出(附註六(六)(七)(十三)(二十)及七)：				
7010	其他收入	8,967,238	4	8,344,017	4
7020	其他利益及損失	(319,456)	-	807,515	-
7050	財務成本	(1,359,114)	(1)	(1,480,040)	(1)
7060	採用權益法認列之關聯企業及合資損益之份額	14,734,118	7	24,079,572	10
	營業外收入及支出合計	22,022,786	10	31,751,064	13
	稅前淨利	42,219,152	20	57,092,376	24
9300	減：所得稅費用(附註六(十五))	4,894,990	2	7,542,836	3
	本期淨利	37,324,162	18	49,549,540	21
8300	其他綜合損益(附註六(十四)(十五)(十六))：				
8310	不重分類至損益之項目				
8311	確定福利計畫之再衡量數	(329,854)	-	(285,593)	-
8316	透過其他綜合損益按公允價值衡量之權益工具投資未實現評價損益	(1,074,161)	-	(12,003,865)	(5)
8320	採用權益法認列之關聯企業及合資之其他綜合損益之份額－不重分類至損益之項目	(1,728,457)	(1)	(4,615,730)	(2)
8349	減：與不重分類之項目相關之所得稅	(65,971)	-	(169,178)	-
		(3,066,501)	(1)	(16,736,010)	(7)
8360	後續可能重分類至損益之項目				
8361	營運機構財務報表換算之兌換差額	(3,418,914)	(2)	1,770,369	1
8370	採用權益法認列之關聯企業及合資之其他綜合損益之份額－可能重分類至損益之項目	(473,462)	-	392,426	-
8399	減：與可能重分類之項目相關之所得稅	(190,273)	-	522,685	-
	後續可能重分類至損益之項目合計	(3,702,103)	(2)	1,640,110	1
8300	本期其他綜合損益	(6,768,604)	(3)	(15,095,900)	(6)
8500	本期綜合損益總額	$ 30,555,558	15	34,453,640	15
		稅前	稅後	稅前	稅後
	基本每股盈餘(元)(附註六(十七))	$ 6.63	5.86	8.97	7.78

(請詳閱後附合併財務報表附註)

董事長：林健男　　經理人：林健男　　會計主管：張嘉澤

附件十一

保密性证据的非保密性概要

保密性证据的非保密性概要

为了使本案的利害关系方能了解申请人申请保密材料部分的综合信息，申请人特将已申请保密的附件做成非保密性概要。

申请保密的附件四：此附件主要是五家申请企业及十家支持企业提供的生产经营数据，包括申请企业的生产能力、产量、内销量、销售收入、利润、利润率、投资收益率、经营现金流量、开工率、劳动生产率、价格、就业情况、工资总额、库存等数据材料，支持企业的生产能力、产量等数据材料。由于涉及申请人及支持企业的商业秘密，其披露将对申请人及支持企业产生不利影响，特申请予以保密。对于上述情况，申请人及支持企业在《申请书》中披露五家申请企业与十家支持企业及其合计数据的指数及变化幅度区间。

申请保密的附件五：此附件主要是关于全球聚氯乙烯产业概况以及美国聚氯乙烯生产、消费的报告。由于此附件是由有关机构提供的，披露该附件的内容将对资料提供者的正常工作产生不利影响，因此申请人在申请书中在披露全球聚氯乙烯产业概况以及美国聚氯乙烯生产、消费的基础上对此附件的其他内容申请保密。

申请保密的附件十：（一）此附件是美国聚氯乙烯对外出口情况的统计资料、（二）此附件是美国乙烯对外出口情况的统计资料。由于此附件是由有关的机构提供的，披露该附件的内容将对资料提供者的正常工作产生不利影响，申请人在披露美国聚氯乙烯对外出口情况及美国乙烯对外出口情况的基础上对此附件的其他内容申请保密。