

## WHERE IN THE WORLD ARE CANADIAN OIL AND GAS COMPANIES? 2013

Niloo Hojjati and Braeden Larson

*Since the original edition of this briefing paper issued on 2017/07/15, new data for the 2012 fiscal year have become available which require revisions to this paper. The new data collected for the 2012 year of study have changed the conclusions that were previously discussed in version 1 of this paper for 2013. For that reason, version 2 of the “Where in the World Are Canadian Oil and Gas Companies? 2013” briefing paper has been released. In version 1, our overall conclusion was that Canadian oil and gas companies (hereafter O&G) were expanding their operations into more regions and countries, while experiencing similar levels of barrels of oil equivalent per day (boe/d) production from exploration and production (E&P) companies between 2012 and 2013. However, with the new available data, our findings conclude that there was in fact a decrease in activity, by both E&P and service companies for the 2013 year of study. Below is the revised “Where in the World Are Canadian Oil and Gas Companies? 2013” briefing paper, version 2, issued on 2018/06/12, which now reflects newly available data for the 2012 fiscal year.*

### INTRODUCTION

Begun in 2011 as an internal research tool for the development of the Extractive Resource Governance Program, this project seeks to answer the vital question: *Where in the world are Canadian oil and gas companies?* To answer this question, we extract firm-level information for publicly traded Canadian companies in order to establish the location of their activities around the globe.<sup>1</sup> The data collected in the “Where in the World” (hereafter WIW) project are presented through a publicly accessible interactive world map, which allows users to explore a specific country or region over time. This map can be accessed online at <http://www.policyschool.ca/research-teaching/teaching-training/extractive-resource-governance/ergp-map/>. For further information regarding the WIW project, including a comprehensive overview of the methodology, please refer to <http://www.policyschool.ca/wp-content/uploads/2017/06/Where-in-the-World-Hojjati-Horsfield-Jordison-final.pdf>. In addition, summary reports of the annual data collection for the 2011 and 2012 years of analysis are also available at <http://www.policyschool.ca/wp-content/uploads/2017/06/2011-Where-in-the-World-Hojjati-Horsfield-Jordison-final.pdf> and <https://www.policyschool.ca/wp-content/uploads/2017/06/2012-Where-in-the-World-Hojjati-Larson.pdf>

<sup>1</sup> The WIW project examines the global activities of Canadian oil and gas companies in 218 countries spanning seven international regions of analysis. They are as follows: Africa; Asia and Oceania; Central and South America; Eurasia; Europe; Middle East; and North America. For a complete list of countries examined in the WIW project, refer to Appendix A.

As do the earlier reports in this series, this report provides an account of emerging trends and highlights variations in the level of global activities of Canadian oil and gas companies (hereafter O&G) for the 2013 year of study.<sup>2</sup> In 2013 a total of 226 Canadian O&G companies engaged in global exploration and service activities in 99 countries worldwide. No region experienced an increase in Canadian exploration and production (E&P) companies; however, there were decreases of activity in six of seven regions, most prominently in Africa and Central and South America. Meanwhile, the international presence of Canadian O&G service companies decreased in most regions, except for Europe, where service companies expanded their operations to five additional countries.

This report begins with a regional overview of the international presence of Canadian E&P companies, followed by a summary of country-level activities. This report then continues by providing the same analysis for Canadian O&G service companies.

## **I. WHERE IN THE WORLD ARE CANADIAN EXPLORATION AND PRODUCTION COMPANIES?**

The international presence of Canadian<sup>3</sup> E&P companies extends to 84 countries in 2013. In total, 172 E&P companies engaged in the search, recovery and production of natural gas and crude oil reserves worldwide. Among the 172 companies, 57 recorded some level of global production.<sup>4</sup> Canadian E&P companies were responsible for 0.61 per cent of the world's production of oil, natural gas liquids (NGL) and natural gas, producing a total amount of 825,271 barrels of oil equivalent per day (boe/d) outside of Canada.<sup>5</sup> This is a decrease of approximately 15 per cent in comparison to production levels in the previous year. The following section presents a detailed account of the international activities of Canadian E&P companies in 2013 in terms of two measures: scale of activity and total level of production. It begins by providing a brief overview of Canadian exploration activities within a regional context, followed by a summary of country-specific results. Finally, highlights of notable E&P company activities conclude this section.

### **A. Regional Overview**

The regional concentration of Canadian E&P companies in 2013 is fairly similar to the previous year; however, there is a clear decrease in the level of Canadian exploration activities across almost all regions. Table 1 presents the number of active Canadian E&P companies in each region of analysis for the year 2013, while outlining the regional presence of companies for the previous year of study by way of comparison.

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<sup>2</sup> The author would like to thank School of Public Policy research assistant Brian McCann for his contributions to the WIW project, specifically for sharing in the collection of 2013 data that are reflected in the contents of this paper.

<sup>3</sup> For the purposes of the WIW project, an O&G company is defined to be “Canadian” according to two selection criteria: (i) the company must have its headquarters (or head office) in Canada; and (ii) the company must be publicly traded on a Canadian exchange.

<sup>4</sup> Information about international operations is not uniformly represented across regulatory filings for similar firms in the oil and gas industry. For instance, in some cases an E&P company might indicate it is active in a particular region or country, but might not specify more detailed information about its activities, such as production levels.

<sup>5</sup> The aim of the WIW project is to examine the international presence of Canadian companies in foreign countries. As such, this project does not provide information related to the activities of Canadian companies within Canada's borders, such as the annual levels of oil, NGL and natural gas produced within Canada.

**TABLE 1 NUMBER OF CANADIAN E&P COMPANIES BY REGION, 2012 AND 2013**

Region	2012			2013		
	Ranking	Number of Active E&P Companies	Number of Countries Activity is Spread Across	Ranking	Number of Active E&P Companies	Number of Countries Activity is Spread Across
Africa	2	53	31	2	39	29
Asia & Oceania	4	33	14	4	30	17
Central & South America	3	43	9	3	37	9
Eurasia	7	7	4	7	4	3
Europe	5	32	17	4	30	16
Middle East	6	14	4	6	14	7
North America (Excluding Canada)	1	82	3	1	78	3
<b>Total Worldwide (Excluding Canada)</b>	<b>N/A</b>	<b>179</b>	<b>82</b>	<b>N/A</b>	<b>172</b>	<b>84</b>

Source: "Where in the World Are Canadian Oil and Gas Companies?" (2013).<sup>6</sup>

As Table 1 shows, North America continues to serve as the primary destination for Canadian exploration activities; however, the number of active companies has decreased by five per cent. The most substantial reduction in the international presence of Canadian E&P activities occurred in Eurasia and Africa, where E&P activities decreased by 43 per cent and 26 per cent respectively. The presence of Canadian E&P companies slightly decreased in all other regions, except for the Middle East, where there was no change in activity year-over-year.

To illustrate the extent of the impact of Canadian exploration activities in the international arena, Table 2 displays the level of production of oil, NGL and natural gas by Canadian companies as a share of total production levels in each region for the 2012 and 2013 years of study.

**TABLE 2 OIL, NGL, NATURAL GAS PRODUCTION LEVELS OF CANADIAN E&P COMPANIES BY REGION, 2012 AND 2013**

Region	2012			2013			
	Ranking	Total Production (boe/d)	Total Production by Canadian Companies (boe/d)	Ranking	Total Production (boe/d)	Total Production by Canadian Companies (boe/d)	Share of Total Production which is Canadian (%)
Africa	4	12,835,582	86,272	4	12,173,096	62,351	0.51%
Asia & Oceania	5	16,115,035	45,071	5	16,067,047	36,386	0.23%
Central & South America	2	10,063,062	197,716	1	10,122,449	196,497	1.94%
Eurasia	7	25,947,930	281	6	26,397,188	9,824	0.037%
Europe	1	8,080,656	198,516	3	7,795,353	115,042	1.48%
Middle East	6	37,117,517	3,231	7	37,316,336	2,835	0.008%
North America (Excluding Canada)	3	23,673,201	434,382	2	24,878,766	402,337	1.62%
<b>Total Worldwide (Excluding Canada)</b>	<b>N/A</b>	<b>133,832,983</b>	<b>965,471</b>	<b>N/A</b>	<b>134,750,236</b>	<b>825,271</b>	<b>0.61%</b>

Source: "Where in the World Are Canadian Oil and Gas Companies?" (2013).<sup>6</sup>

<sup>6</sup> "Where in the World Are Canadian Oil and Gas Companies?" University of Calgary School of Public Policy, <http://www.policyschool.ca/research-teaching/teaching-training/extractive-resource-governance/ergp-map/>. For further background information regarding the WIW project, including the methodology and sources of data extraction, see Niloo Hojjati, Kai Horsfield, and Shantel Jordison, "Where in the World Are Canadian Oil and Gas Companies? An Introduction to the Project," University of Calgary School of Public Policy Research Paper (volume 13) (2017).

As shown in Table 2, the contribution of Canadian exploration activities in terms of worldwide production levels of oil, NGL and natural gas is the highest in Central and South America for the first time since the beginning of this study in 2011. The share of Canadian production has fallen significantly in Europe and Africa in comparison with the previous year. While Africa maintained its fourth-place ranking, Europe fell from a first-place to a third-place ranking between 2012 and 2013. Meanwhile, in Eurasia, while the presence of Canadian E&P companies has decreased by nearly 43 per cent, the share of production of oil, NGL and natural gas by Canadian companies has increased significantly.

## B. Country Overview

For the third consecutive year, the United States and Colombia serve as principal hosts for the international operations of Canadian E&P companies. The highest concentration of Canadian exploration activities in Europe occurred in the United Kingdom, where the presence of companies increased by 22 per cent. In fact, the United Kingdom was one of the two countries with a top-five ranking in 2013 to have had an increase in the presence of Canadian E&P companies (the other country being Argentina). Meanwhile, on the African continent, Tunisia continued to serve as the primary destination for Canadian E&P companies. The level of Canadian exploration activities in the remaining top five ranking countries is similar to the previous year and is outlined in Table 3 below.

**TABLE 3 TOP FIVE COUNTRIES BY NUMBER OF CANADIAN E&P COMPANIES, 2012 AND 2013**

Country	2012		2013	
	Ranking	Number of Active E&P Companies	Ranking	Number of Active E&P Companies
Argentina	5	8	3	9
Australia	3	11	3	9
Brazil	4	9	4	8
Colombia	2	23	2	20
Peru	5	8	5	7
Tunisia	4	9	4	8
United Kingdom	6	7	3	9
U.S.	1	80	1	77
<b>Total Worldwide (Excluding Canada)</b>	<b>N/A</b>	<b>179</b>	<b>N/A</b>	<b>172</b>

Source: "Where in the World Are Canadian Oil and Gas Companies?" (2013).<sup>6</sup>

To establish the significance of the role of Canadian exploration activities in local oil and gas industries around the globe in 2013, Table 4 highlights the five countries with the highest share of total oil, NGL and natural gas production relative to total production levels in each country, while also providing the country production levels in 2012 for comparison. As Table 4 shows, for the second consecutive year, the highest share of oil, NGL and natural gas production by Canadian E&P companies occurred in Colombia, the United Kingdom, Tunisia and Bangladesh. However, it is worthwhile to note that the share of Canadian production has fallen by two percentage points in the top three countries in comparison to the previous year. Last, oil, NGL and natural gas production resulting from Canadian exploration activities has increased by 0.02 percentage points relative to the previous year in New Zealand, with the country now ranking fifth (it previously ranked seventh in 2012).

**TABLE 4 TOP FIVE COUNTRIES BY PERCENTAGE OF CANADIAN OIL, NGL AND NATURAL GAS PRODUCTION AS A SHARE OF TOTAL COUNTRY PRODUCTION, 2012 AND 2013**

Country	2012			2013			
	Ranking	Total Production (boe/d)	Total Production by Canadian Companies (boe/d)	Ranking	Total Production (boe/d)	Total Production by Canadian Companies (boe/d)	Share of Total Production which is Canadian (%)
Bangladesh	4	343,269	9,330	4	356,804	9,793	2.74%
Colombia	1	1,136,700	186,658	1	1,207,765	184,311	15.3%
New Zealand	7	115,096	2,201	5	112,104	2,162	1.92%
Tunisia	3	97,193	4,169	3	92,391	2,606	2.82%
United Kingdom	2	1,908,669	167,566	2	1,787,561	93,934	5.25%
<b>Total Worldwide (Excluding Canada)</b>	<b>N/A</b>	<b>133,832,983</b>	<b>965,471</b>	<b>N/A</b>	<b>134,750,236</b>	<b>925,271</b>	<b>0.61%</b>

Source: "Where in the World Are Canadian Oil and Gas Companies?" (2013).<sup>6</sup>

### C. Company Highlights

To understand the breadth of the international presence of Canadian E&P companies around the world, Table 5 presents the top three ranking companies in terms of number of active country operations in 2013, as well as the corresponding levels in the previous year. As the table shows, for the third consecutive year, Talisman Energy Inc. is responsible for the highest number of country operations, having increased its presence to two additional countries since 2012. The second position on the list is occupied by a number of companies, namely Heritage Oil Corp., Husky Energy Inc., Niko Resources Ltd. and Pacific Rubiales Energy Corp., all of which have operations in seven countries worldwide. Among these companies, only Husky Energy Inc. has expanded its operations, by one country to seven in 2013. Heritage Oil Corp. reduced operations by one country, while Niko Resources Ltd. and Pacific Rubiales Energy Corp. remained static year-over-year. The remaining leading companies with the largest number of country operations are outlined in Table 5 below.

**TABLE 5 TOP THREE CANADIAN E&P COMPANIES BY NUMBER OF COUNTRY OPERATIONS, 2012 AND 2013**

Company	2012		2013	
	Ranking	Number of Countries with Recorded E&P Activity	Ranking	Number of Countries with Recorded E&P Activity
Heritage Oil Corp.	2	8	2	7
Husky Energy Inc.	4	6	2	7
Niko Resources Ltd.	3	7	2	7
Pacific Rubiales Energy Corp.	3	7	2	7
Serinus Energy Inc.	7	3	3	6
Simba Energy Inc.	3	7	3	6
Suncor Energy Inc.	3	7	3	6
Talisman Energy Inc.	1	13	1	15
VanOil Energy Ltd.	5	5	3	6
Vermilion Energy Inc.	6	4	3	6
<b>Total Worldwide (Excluding Canada)</b>	<b>N/A</b>	<b>82</b>	<b>N/A</b>	<b>84</b>

Source: "Where in the World Are Canadian Oil and Gas Companies?" (2013).<sup>6</sup>

Table 6 highlights the top five Canadian E&P companies according to levels of total in-country company production of oil, NGL and natural gas in 2013, while outlining production levels in the 2012 year of study.

**TABLE 6 TOP FIVE CANADIAN E&P COMPANIES LEVEL BY OIL, NGL AND NATURAL GAS PRODUCTION, 2012 AND 2013**

Company	2012			2013		
	Ranking	Total Company Production (boe/d)	Number of Countries with Recorded Production <sup>4</sup>	Ranking	Total Company Production (boe/d)	Number of Countries with Recorded Production <sup>4</sup>
Encana Corporation	1	281,933	1	1	247,667	1
Enerplus Corporation	8	25,148	1	5	39,817	1
Pacific Rubiales Energy Corp.	4	97,657	2	3	128,814	2
Suncor Energy Inc.	5	89,500	2	4	76,400	2
Talisman Energy Inc.	2	158,043	4	2	166,578	5
<b>Total Worldwide (Excluding Canada)</b>	<b>N/A</b>	<b>965,471</b>	<b>24</b>	<b>N/A</b>	<b>825,271</b>	<b>25</b>

Source: "Where in the World Are Canadian Oil and Gas Companies?" (2013).<sup>6</sup>

As Table 6 shows, Encana Corp.'s production decreased between 2012 and 2013 but Encana is still ranked first in terms of production. Meanwhile, Pacific Rubiales Energy Corp. had an increase of 32 per cent in company production levels in comparison to 2012. Talisman Energy Inc., which ranks second, only increased production by five per cent year-over-year. Suncor Energy Inc. now ranks fourth (it previously ranked fifth in 2012), while Enerplus Corp. has had an increase of 14,669 boe/d in production levels in the United States.

## II. WHERE IN THE WORLD ARE CANADIAN O&G SERVICE COMPANIES OPERATING?

In 2013, 54 Canadian O&G service companies conducted international operations in 59 countries around the world. This section provides a summarized account of the international presence of Canadian O&G service companies in 2013. It begins with a regional description of the level of service activities, followed by a brief overview of Canadian operations on a country basis. Last, highlights of notable service companies are presented.

### A. Regional Overview

For the second consecutive year, the vast majority of the international operations of Canadian O&G service companies occurred in North America, and Asia and Oceania. While Central and South America experienced a 12 per cent decrease in activity since 2012, the region ranks as the third significant for Canadian service activity. Europe now serves as the fourth most significant destination for Canadian service companies, swapping its ranking position with the Middle East in comparison to 2012. Last, both the Middle East and Africa experienced a decrease of 18 per cent and 30 per cent respectively in the number of active Canadian O&G service companies. Table 7 below outlines the number of active Canadian service companies in the remaining regions for this year of study, including the 2012 level of regional activity.

**TABLE 7 NUMBER OF CANADIAN O&G SERVICE COMPANIES BY REGION, 2012 AND 2013**

Region	2012			2013		
	Ranking	Number of Active Service Companies	Number of Countries Activity is Spread Across	Ranking	Number of Active Service Companies	Number of Countries Activity is Spread Across
Africa	5	10	15	7	7	12
Asia & Oceania	2	19	12	2	20	12
Central & South America	3	17	10	3	15	11
Eurasia	7	8	2	6	8	2
Europe	5	10	8	4	11	13
Middle East	4	11	7	5	9	6
North America (Excluding Canada)	1	51	2	1	42	2
<b>Total Worldwide (Excluding Canada)</b>	<b>N/A</b>	<b>63</b>	<b>56</b>	<b>N/A</b>	<b>54</b>	<b>59</b>

Source: "Where in the World Are Canadian Oil and Gas Companies?" (2013).<sup>6</sup>

## B. Country Overview

Similar to 2012, the United States, Mexico, Australia and Colombia served as the top three destinations for Canadian O&G service companies in 2013. However, in the United States, Canadian service activities decreased by 26 per cent. Meanwhile, China saw a surge in the presence of active companies, now ranking fourth as opposed to eighth in 2012. Russia and the United Kingdom saw almost no growth in Canadian service activity year-over-year, but are still ranked fifth for 2013. The top five-ranking countries with the largest presence of Canadian O&G service companies in 2013, including their level of activity in the previous year of study, are recorded in Table 8 below.

**TABLE 8 TOP FIVE COUNTRIES BY NUMBER OF CANADIAN O&G SERVICE COMPANIES 2012 AND 2013**

Country	2012		2013	
	Ranking	Number of Active Service Companies	Ranking	Number of Active Service Companies
Australia	3	12	3	12
China	8	4	4	7
Colombia	3	12	3	12
Mexico	2	16	2	15
Russia	6	6	5	6
United Kingdom	7	5	5	6
U.S.	1	50	1	37
<b>Total Worldwide (Excluding Canada)</b>	<b>N/A</b>	<b>63</b>	<b>N/A</b>	<b>54</b>

Source: "Where in the World Are Canadian Oil and Gas Companies?" (2013).<sup>6</sup>

## C. Company Highlights

To demonstrate the international presence of key players among the Canadian O&G service companies in the WIW project, Table 9 below presents the top three service companies in accordance with the number of country operations. Between 2012 and 2013 the same three

companies are ranked in the top three positions. For the second consecutive year, Major Drilling Group International Inc. has the highest level of international operations among all Canadian O&G service companies in the WIW project. Shawcor Ltd. remains the second-ranked company, but experienced no growth between 2012 and 2013. Meanwhile, Enerflex Ltd. decreased its operations by ceasing operations in two countries in 2013.

**TABLE 9 TOP THREE CANADIAN SERVICE COMPANIES BY NUMBER OF COUNTRY OPERATIONS, 2012 AND 2013**

Company	2012		2013	
	Ranking	Number of Countries with Recorded Service Activity	Ranking	Number of Countries with Recorded Service Activity
Enerflex Ltd	3	15	3	13
Major Drilling Group International Inc	1	20	1	19
Shawcor Ltd	2	16	2	16
<b>Total Worldwide (Excluding Canada)</b>	<b>N/A</b>	<b>56</b>	<b>N/A</b>	<b>59</b>

Source: "Where in the World Are Canadian Oil and Gas Companies?" (2013).<sup>6</sup>

## CONCLUSION

In 2013, 226 Canadian O&G companies engaged in global exploration and service activities in 99 countries worldwide, compared to 242 active Canadian companies in 99 countries in 2012, and 255 companies in 106 countries in 2011. The most substantial reduction in the international presence of Canadian E&P companies occurred in Africa, and Central and South America. While there was a considerable reduction in the role of Canadian E&P companies in many countries, expansion did occur in the United Kingdom and Argentina. Meanwhile, the greatest contribution of Canadian exploration activities in terms of production levels occurred in Central and South America, where Canadian E&P companies accounted for 15 per cent of total oil, NGL and natural gas production in Colombia. Russia and China served as key jurisdictions for Canadian service companies once again in 2013, after falling out of the rankings in the previous year. For further information and country profiles, please visit the accompanying website <http://www.policyschool.ca/research-teaching/teaching-training/extractive-resource-governance/ergp-map/>.

## APPENDIX A: COUNTRIES OF ANALYSIS

This section outlines the list of countries examined in the WIW project. The countries of analysis are organized according to the designation system employed by the U.S. Energy Information Administration (EIA).

**TABLE A1 COUNTRIES OF ANALYSIS BY U.S. EIA DESIGNATION SYSTEM**

Region: Africa	Region: Asia & Oceania	Region: Central & South America
Algeria	Afghanistan	Antarctica
Angola	American Samoa	Antigua and Barbuda
Benin	Australia	Argentina
Botswana	Bangladesh	Aruba
Burkina Faso	Bhutan	Bahamas, The
Burundi	Brunei	Barbados
Cameroon	Burma (Myanmar)	Belize
Cape Verde	Cambodia	Bolivia
Central African Republic	China	Brazil
Chad	Cook Islands	Cayman Islands
Comoros	Fiji	Chile
Congo (Brazzaville)	French Polynesia	Colombia
Congo (Kinshasa)	Guam	Costa Rica
Côte d'Ivoire (Ivory Coast)	Hong Kong	Cuba
Djibouti	India	Dominica
Egypt	Indonesia	Dominican Republic
Equatorial Guinea	Japan	Ecuador
Eritrea	Kiribati	El Salvador
Ethiopia	Korea, North	Falkland Islands (Islas Malvinas)
Gabon	Korea, South	French Guiana
Gambia, The	Laos	Grenada
Ghana	Macau	Guadeloupe
Guinea	Malaysia	Guatemala
Guinea-Bissau	Maldives	Guyana
Kenya	Micronesia	Haiti
Lesotho	Mongolia	Honduras
Liberia	Nauru	Jamaica
Libya	Nepal	Martinique
Madagascar	New Caledonia	Montserrat
Malawi	New Zealand	Netherlands Antilles
Mali	Niue	Nicaragua
Mauritania	Pakistan	Panama
Mauritius	Papua New Guinea	Paraguay
Morocco	Philippines	Peru
Mozambique	Samoa	Puerto Rico
Namibia	Singapore	Saint Kitts and Nevis
Niger	Solomon Islands	Saint Lucia
Nigeria	Sri Lanka	Saint Vincent/Grenadines
Réunion	Taiwan	Suriname
Rwanda	Thailand	Trinidad and Tobago
Saint Helena	Timor-Leste (East Timor)	Turks and Caicos Islands
São Tomé and Príncipe	Tonga	Uruguay
Senegal	Tuvalu	Venezuela
Seychelles	U.S. Pacific Islands	Virgin Islands, British
Sierra Leone	Vanuatu	Virgin Islands, U.S.
Somalia	Vietnam	
South Africa	Wake Island	
Sudan and South Sudan		
Swaziland		
Tanzania		
Togo		
Tunisia		
Uganda		
Western Sahara		
Zambia		
Zimbabwe		

Source: U.S. Energy Information Administration website, "Countries," <http://www.eia.gov/countries/#allcountries>

**TABLE A2 COUNTRIES OF ANALYSIS BY U.S. EIA DESIGNATION SYSTEM (CONTINUED)**

Region: Eurasia	Region: Europe	Region: Middle East	Region: North America
Armenia	Albania	Bahrain	Bermuda
Azerbaijan	Austria	Iran	Greenland
Belarus	Belgium	Iraq	Mexico
Estonia	Bosnia and Herzegovina	Israel	Saint Pierre and Miquelon
Georgia	Bulgaria	Jordan	United States
Kazakhstan	Croatia	Kuwait	
Kyrgyzstan	Cyprus	Lebanon	
Latvia	Czech Republic	Oman	
Lithuania	Denmark	Palestinian Territories	
Moldova	Faroe Islands	Qatar	
Russia	Finland	Saudi Arabia	
Tajikistan	France	Syria	
Turkmenistan	Germany	United Arab Emirates	
Ukraine	Gibraltar	Yemen	
Uzbekistan	Greece		
	Hungary		
	Iceland		
	Ireland		
	Italy		
	Luxembourg		
	Macedonia		
	Malta		
	Montenegro		
	Netherlands		
	Norway		
	Poland		
	Portugal		
	Romania		
	Serbia		
	Slovakia		
	Slovenia		
	Spain		
	Sweden		
	Switzerland		
	Turkey		
	United Kingdom		

Source: U.S. Energy Information Administration website, "Countries," <http://www.eia.gov/countries/#allcountries>

## About the Authors

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