

EGEDA secretariat update

**54th Meeting of the APEC Expert Group on New and Renewable Energy Technologies (EGNRET)
Hosted by the Philippines; 10-11 November 2020**

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Outline

1. Activities of the EGEDA secretariat
2. Report on energy data collection
3. Tracking the APEC RE doubling goal



EGEDA activities

Energy data collection

- Monthly oil and gas supply and demand (JODI)
- Quarterly energy supply data
- Annual
 - Energy supply and demand
 - Energy prices
 - CO2 emissions from energy combustion
 - Energy efficiency indicators template
 - Socio-economic data
 - Energy-related activity data

Other activities (1)

- Maintenance of the APEC energy database and EGEDA website
 - Monthly, quarterly and annual data processing and uploading to the APEC energy database
 - Publication of annual energy data
 - Keeping the EGEDA website up-to-date
- Implementation of EGEDA training program on energy statistics
- Holding of annual EGEDA meeting and workshop

Other activities (2)

- Participation in international technical working groups on energy statistics
 - Joint organisations data initiative inter-secretariat working group meetings (**JODI ISWG**) and JODI training workshops
 - IEA's energy statistics development group (**ESDG**) meetings
 - International energy statistics working group (**InterEnerStat**)
 - IRENA and UNSD training workshops (occasional)

Other activities (3)

- Research on district cooling in APEC
- Research on energy efficiency decomposition analysis
- Tracking the APEC energy goals and prepares report to EWG and other APEC fora
 - Energy intensity reduction
 - “Reduce APEC’s energy intensity by 45% by 2035 from 2005 levels”***
 - Renewable energy doubling goal
 - “Double the share of renewables in the APEC energy mix, including power generation, from 2010 levels by 2030”***



Report on energy data collection

Report on energy data collection

The secretariat has been collecting data as follows:

- Annual energy supply and demand data: since 1991
 - One APEC economy still not able to submit this data; the secretariat has to estimate its energy balance table
 - For the 2018 data, PRC is not yet able to submit
- Quarterly energy supply data: since 1994
 - Five economies don't submit
- Energy prices: six economies submitted 2018 data
- Energy efficiency indicators template: seven economies



Tracking the APEC RE doubling goal

Renewable share doubling goal milestones

- 1. EWG 47 (May 2014)** - US proposed the APEC aspirational goal of doubling the share of renewable energy by 2030 and noted that it interacted with APEC's aspirational energy intensity goal.
- 2. EMM 11 (Sep 2014)** - "Doubling the share of renewables in the APEC energy mix, including in power generation, from 2010 levels by 2030."
- 3. EWG 54 (Nov 2017)** - EWG decided that traditional biomass will not be counted; IRENA's definition of renewable energy is recommended; APEC data should be used for monitoring progress; and the goal should be monitored on both the supply and demand side.

Renewable energy supply and consumption

Primary energy supply, PJ

	2010	2018	% change
Non-renewables	287,524	311,028	8.2%
Coal	116,655	113,078	-3.1%
Oil	90,579	98,671	8.9%
Gas	61,372	79,630	29.7%
Other non-renewables	18,917	19,649	3.9%
Traditional biomass	3,551	3,090	-13.0%
Modern renewable energy	14,989	23,445	56.4%
Modern biomass	4,491	5,808	29.3%
Hydro	6,396	8,898	39.1%
Geothermal	1,486	1,757	18.2%
Solar	157	1,501	857.3%
Wind	586	2,611	345.9%
Other renewables	1,873	2,869	53.2%
Total	306,064	337,562	10.3%
Modern RE share	4.9%	6.9%	41.8%

Final energy consumption, PJ

	2010	2018	% change
Non-renewables	164,161	181,159	10.4%
Coal	30,243	25,905	-14.3%
Oil	65,128	71,216	9.3%
Gas	26,184	34,326	31.1%
Electricity	34,553	40,037	15.9%
Heat	7,839	9,373	19.6%
Other non-renewables	215	303	40.8%
Traditional biomass	3,551	3,090	-13.0%
Modern renewable energy	10,739	17,547	63.4%
Electricity	6,243	11,584	85.6%
Heat	61	62	0.9%
Modern biomass	2,862	3,276	14.5%
Other renewables	1,574	2,625	66.8%
Total	178,452	201,796	13.1%
Modern RE share	6.0%	8.7%	44.5%

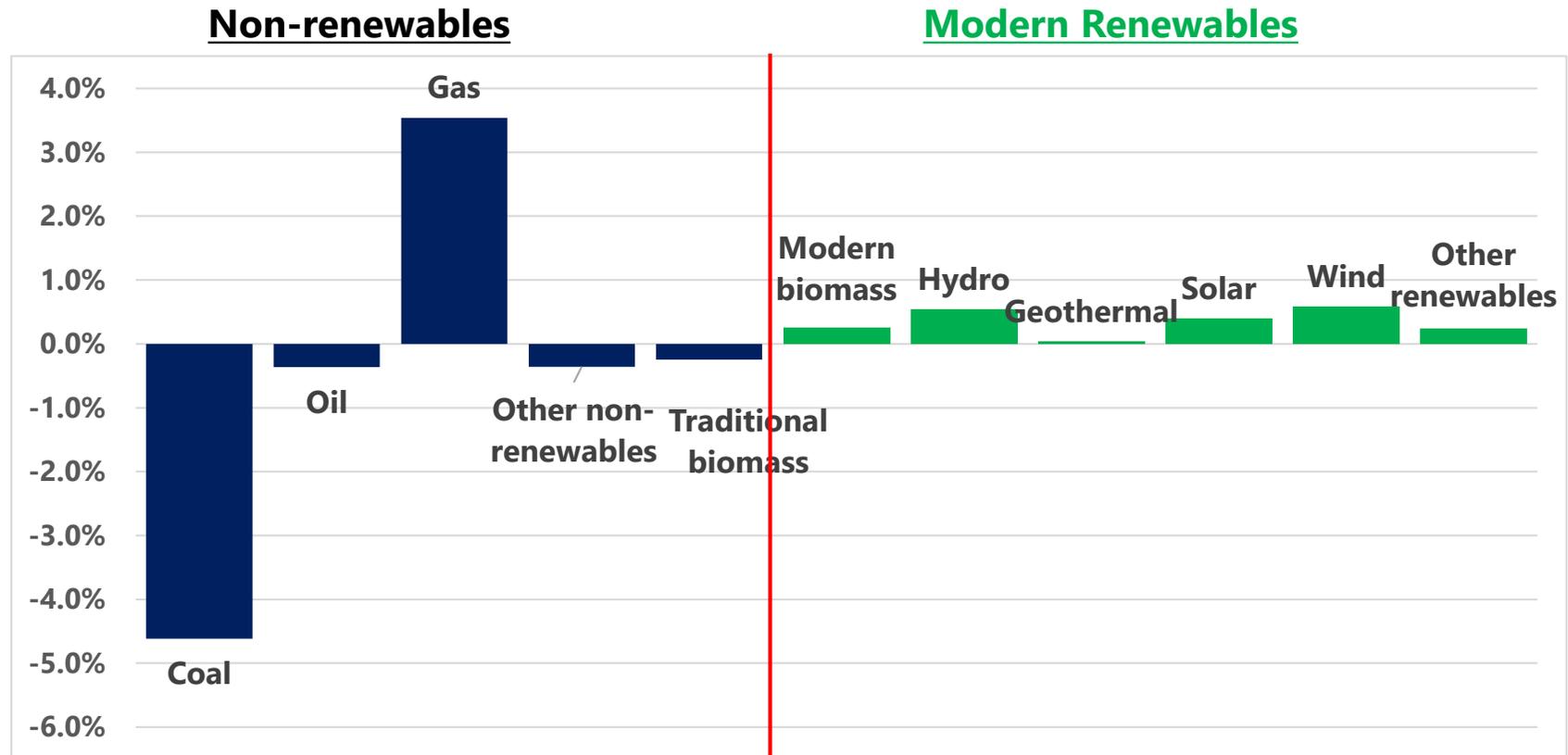
Note: Consumption of electricity and heat from renewables is calculated from the share of total electricity and heat production.

Data of China for 2018 are estimated based on preliminary information.

Source: APEC data.

Coal and other energy lost shares to gas and renewables

Percent change in fuels in primary energy supply market share, 2010-2018



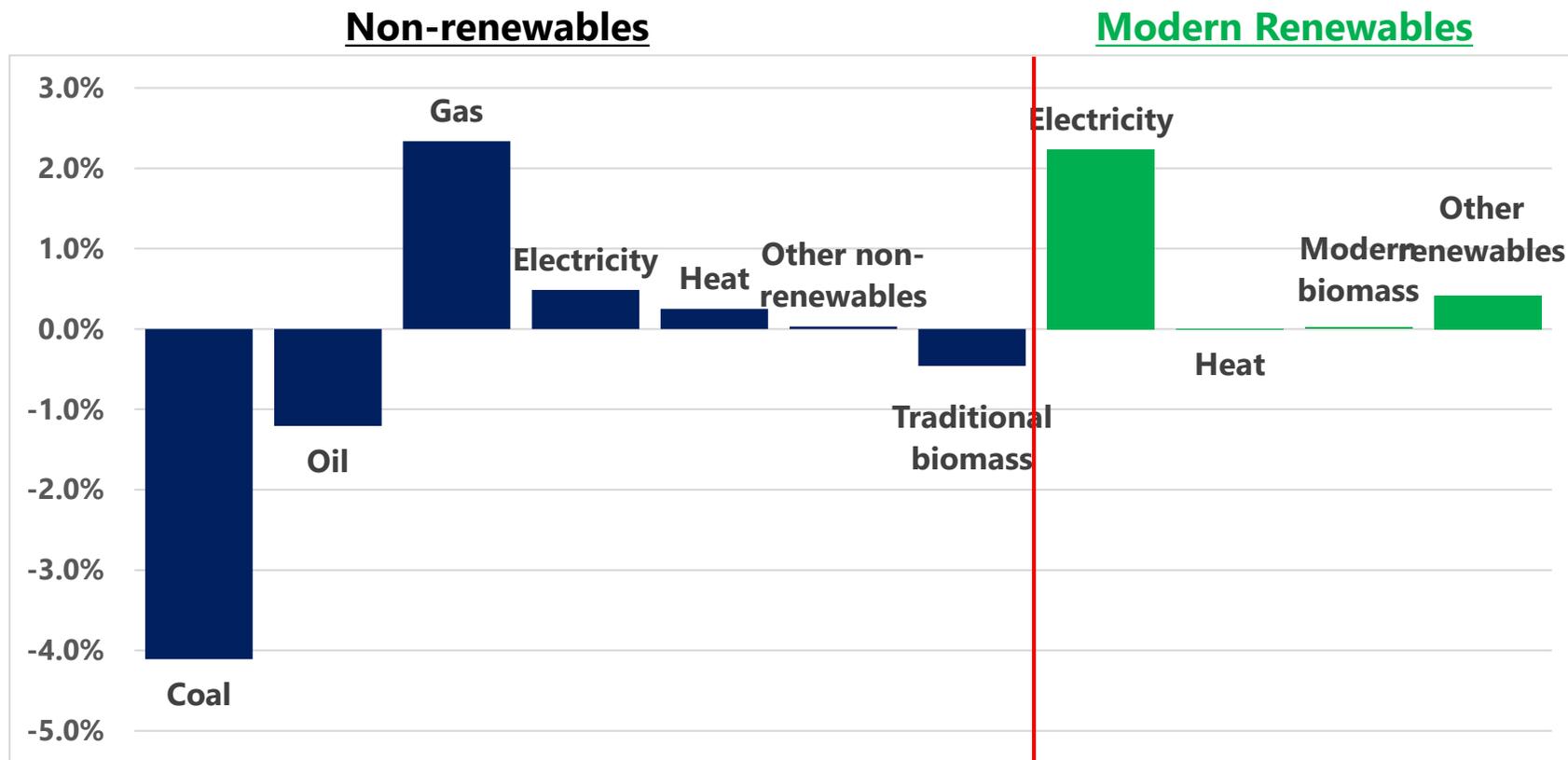
Note: Renewable energy includes electricity and heat generated from renewable energy sources

Source: APEC data

From 2010 to 2018, the renewable share increased 2.0 percentage points, 42% of the way to the goal.

Coal and oil lost shares to renewables in electricity

Percent change in fuels in final energy consumption market share, 2010-2018



Note: Renewable energy includes electricity and heat generated from renewable energy sources

Source: APEC data.

From 2010 to 2018, the renewable share increased 2.7 percentage points, 44% of the way to the goal.

Renewable energy supply and consumption

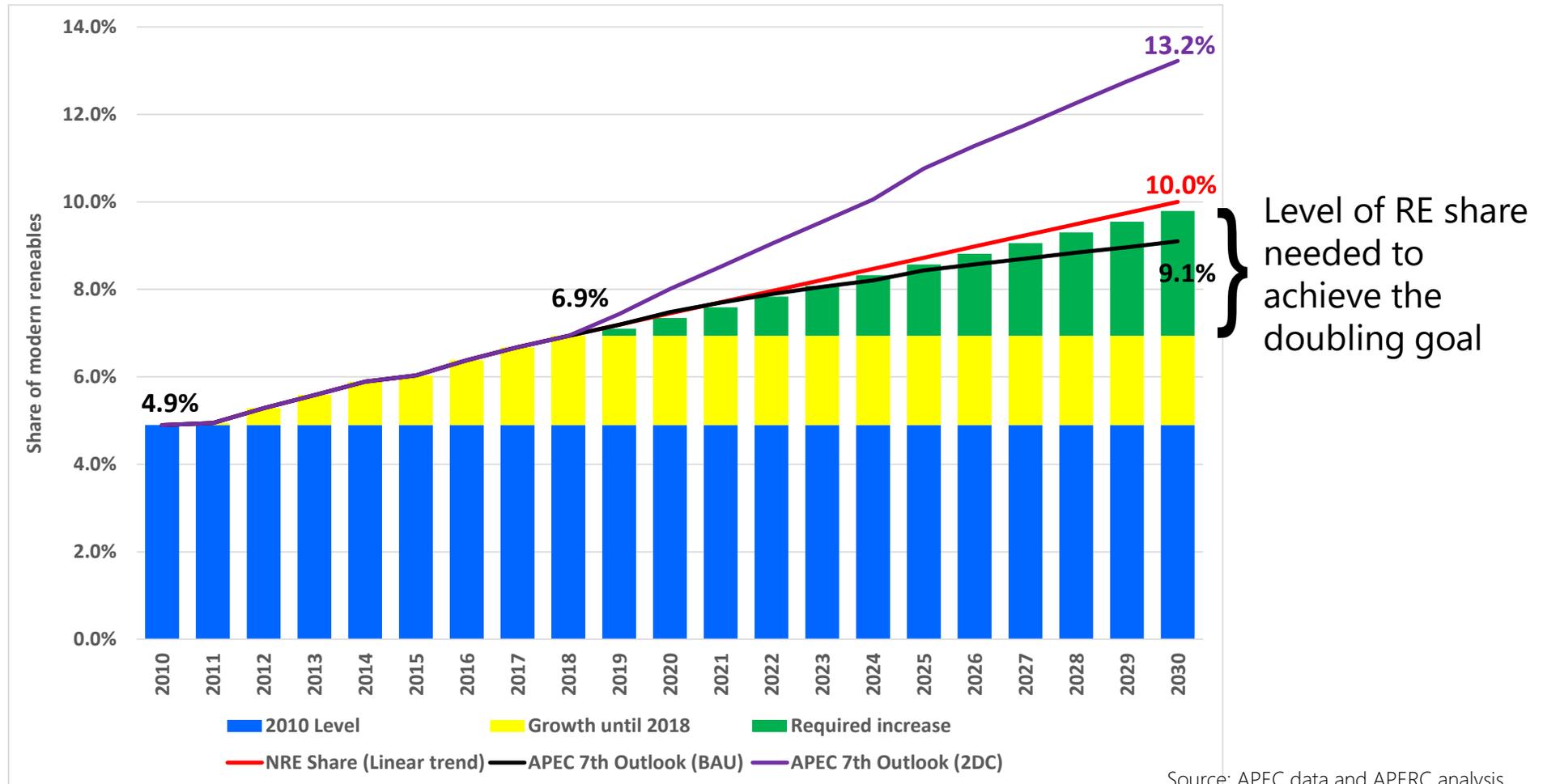
Electricity Generation, TWh

	2010	2018	% change
Non-renewables	11,377	13,059	14.8%
Coal	6,572	7,463	13.6%
Oil	330	210	-36.5%
Gas	2,711	3,624	33.7%
Nuclear	1,658	1,681	1.4%
Other non-renewables	106	81	-23.4%
Modern renewable energy	2,103	3,824	81.9%
Modern biomass	73	165	126.8%
Hydro	1,780	2,475	39.1%
Geothermal	53	60	13.7%
Solar	9	366	3966.3%
Wind	163	725	345.8%
Other renewables	26	34	29.6%
Total	13,480	16,884	25.3%
Modern RE share	15.6%	22.7%	45.2%

Even in electricity generation, for just 40% of the time to 2030, APEC has already increased renewable energy share by 45%

Supply outlook extrapolation exceeds goal

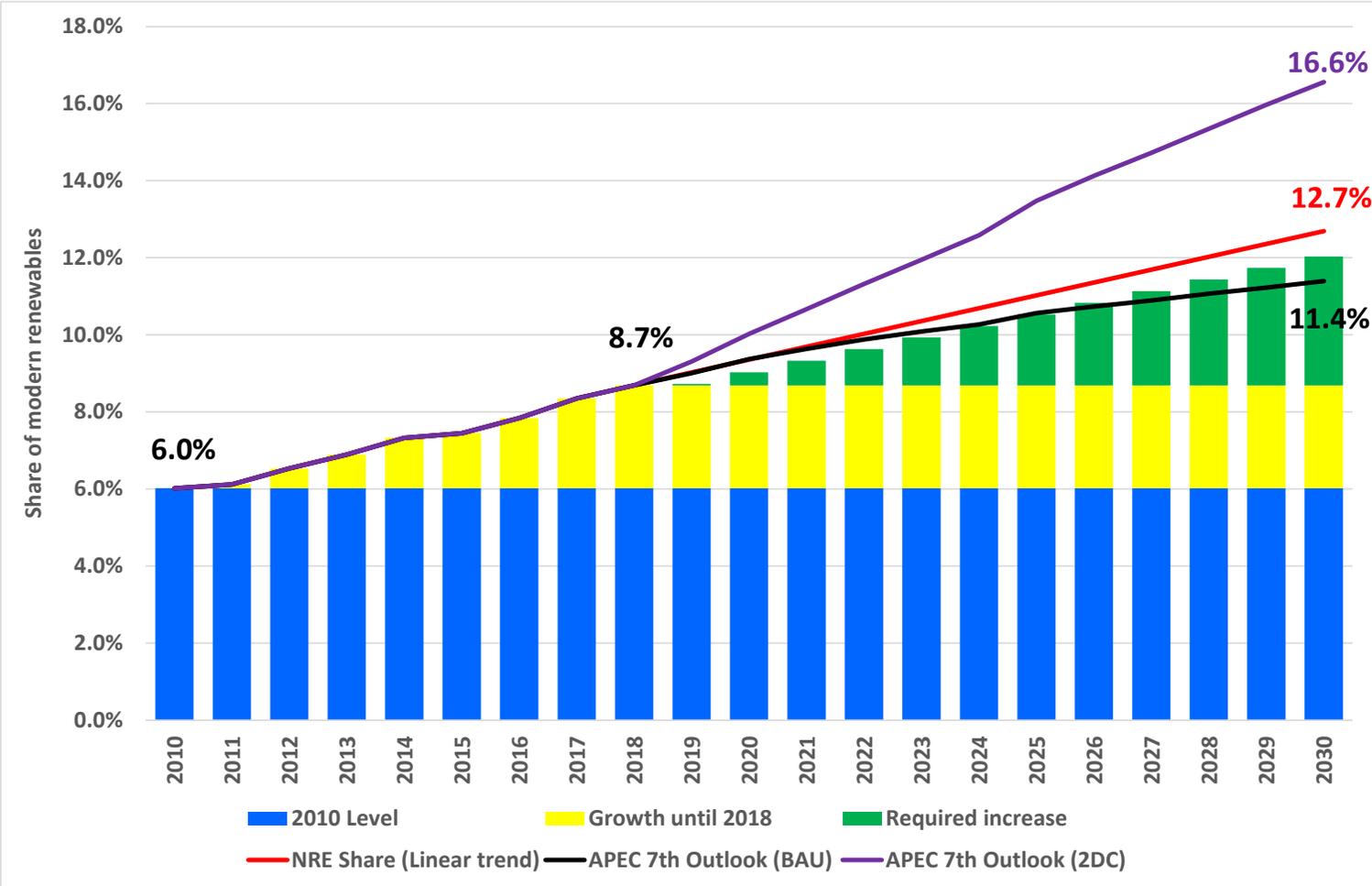
Renewable energy share in total primary energy supply, 2010-2030



Source: APEC data and APERC analysis.

Demand outlook extrapolation also exceeds goal

Renewable energy share in total final energy demand, 2010-2030



Level of RE share needed to achieve the doubling goal

Source: APEC data and APERC analysis.

Way forward

- The secretariat hopes to receive the 2018 data of China before EWG60 for reporting more accurate tracking of the APEC goals
- Continue to promote the inclusion of “new” energy products like hydrogen and district cooling in energy statistics
- Give more focus on renewable energy statistics and end-use energy consumption data in the training agenda
- 18th APEC workshop on energy statistics in December 2020 will focus on renewable energy measurement and estimation
- 19th workshop in the second half of 2021 will focus on collecting and estimating end-use energy consumption data



**Thank you for your kind
attention**

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