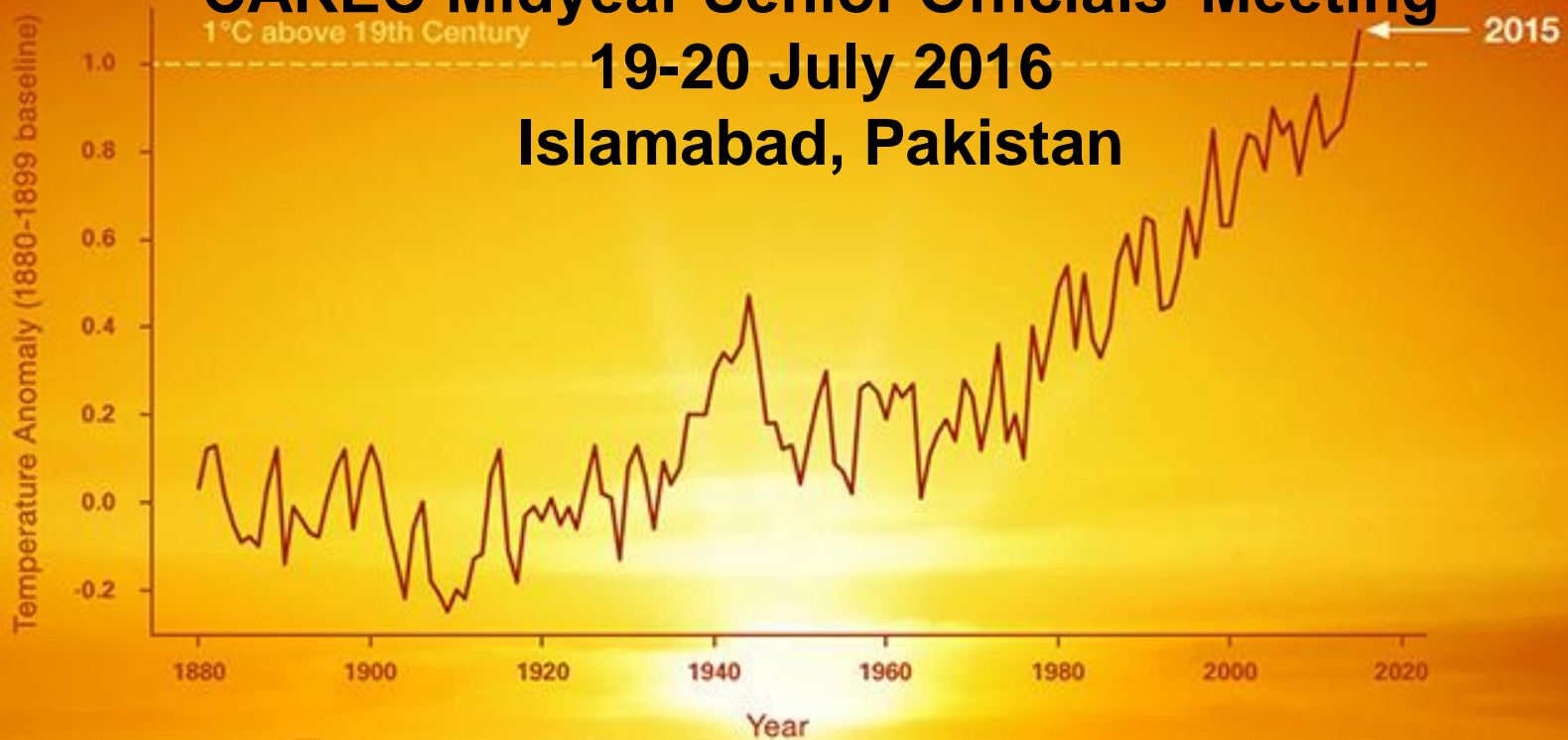


# CAREC Midyear Senior Officials' Meeting

19-20 July 2016

Islamabad, Pakistan



## Session 1 - Energy Sector: Progress Report and Work Plan

Mr. Sohail Hasnie

Principal Energy Specialist

Energy Division, Central and West Asia Department

Asian Development Bank

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# Output Indicators

## Progress on Conventional Energy

Indicator	Unit	2013		
		(Baseline)	2014 <sup>1</sup>	2015 <sup>2</sup>
Transmission lines installed or upgraded transmission lines	Km	612	1,150	2,073
Increased energy generation capacity	MW	300	600	736
Rehabilitated generation capacity	MW	0	520	585
New substations	MVA	250	4,200	4,629
Upgraded substations	MVA	400	5,200	5,551

<sup>1</sup> Based on data received from AFG, KAZ, MON, PAK and UZB, as of 11 September 2015.

<sup>2</sup> Based on data received from AZB, MON, and UZB as of 11 April 2016.

# Output Indicators

## Progress on New Energy

Indicator		Unit	2014 (Baseline) <sup>2</sup>	2015 <sup>2</sup>
Wind Power Installed	Capacity	MW net	61	111
	Generation	MWh	122.5	122.5
Solar Power Installed	Capacity	MW net	24	44
	Generation	MWh		
Electric vehicle Adoption <sup>1</sup>		Nos. <sup>1</sup>		20,000 <sup>4</sup>
LED public lighting <sup>1</sup>		Km of roads <sup>1</sup>	987	1,188
		No. of Units <sup>3</sup>	500,294	733,502
Energy Efficiency Savings		MWh	23,824	9,965

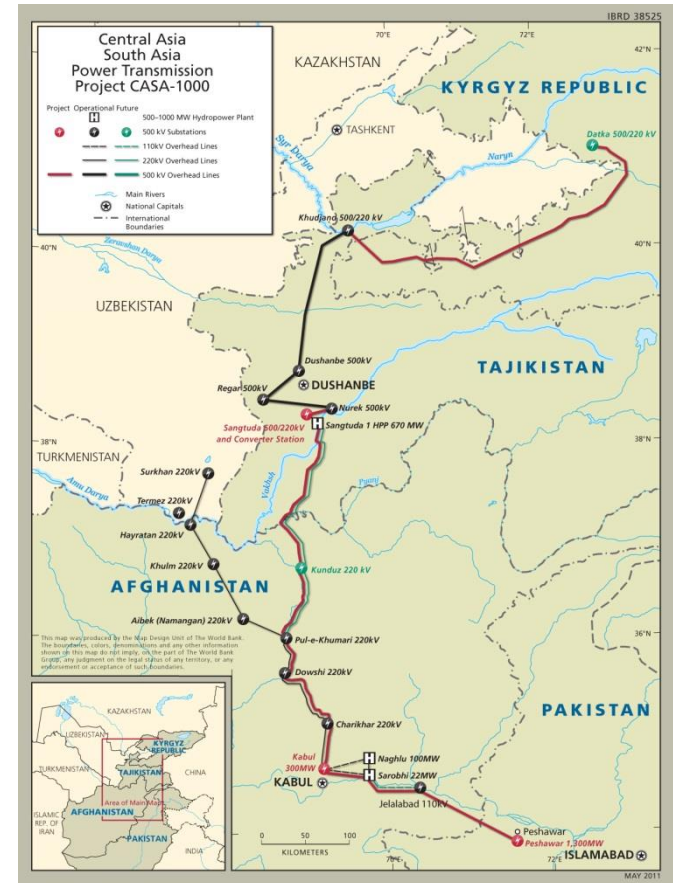
<sup>1</sup> Targets will not be set initially for these indicators. The ESCC will instead monitor progress against these indicators in the coming years and decide whether targets should be set in the future.

<sup>2</sup> Based on data received from AZB, MON, and UZB as of 11 April 2016.

<sup>3</sup> Based on data received from UZB as of 11 April 2016.

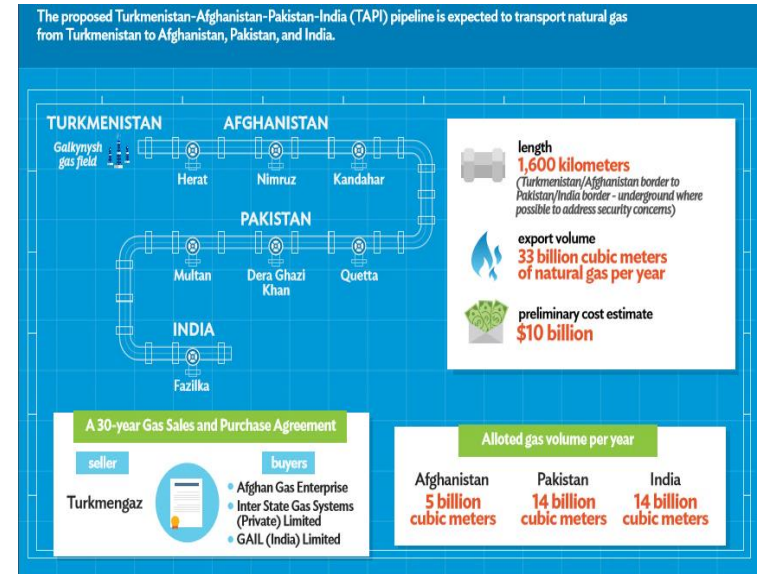
<sup>4</sup> Mongolia has about 200,000 hybrid cars and about 20,000 was added in 2015.

# CASA 1000: E-CASAREM Projects Milestone



Launched on 12 May 2016 in  
Dushanbe, Tajikistan  
Expected Project Completion  
moved to 2020 from 2018

# TAPI: E-CASAREM Projects Milestone



- ✓ Turkmengas was selected as consortium leader on August 2015
- ✓ Shareholder's Agreement was signed on December 2015
- ✓ Investment Agreement was signed on April 2016

# TUTAP: Benefits



- **Uzbekistan to Afghanistan**  
Completed 2009: 300 MW, 220 kV, 500 km  
Savings: **\$320 million**

- **Tajikistan to Afghanistan**  
Completed Oct 2011: 300MW, 220kv, 175km  
(in AFG)

Savings: **\$170 million**

- **Turkmenistan to Afghanistan**  
Expected Completion: 2019-2025  
Implementation of the 500 kV has begun  
Savings: **\$220-400 million**



# New TUTAP Component





# Capacity Building and Knowledge Management (2016-2020)

**Knowledge sharing:** smart meters, project management, independent regulation, tariff policy, forecasting, planning and energy efficiency

**Technology adoption:** smart meters, solar power, battery based storage, electric vehicles and energy efficiency

**Regulatory issues:** framework for independent regulation, tariff setting for time-of-use tariffs, pre-paid meters, IPP tariffs and benchmarking

**Training:** demand management, forecasting, solar power, battery storage, energy efficiency and management of large projects



# Moving Forward

## Promoting and Prioritizing New Technologies

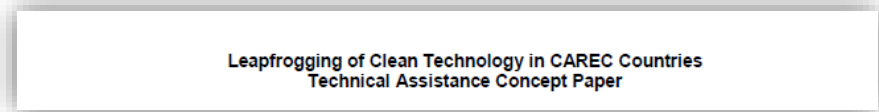
### Develop CAREC new technology roadmap

### Unify CAREC as a regional market for new technology

- Regulator's Network
- Energy Investor's Forum

### Technology selection

- Capacity Development
- Demonstration Projects



# Moving Forward

## Workshop and Trainings

- **Demonstration of Off-Grid Renewable Technology:** Flinders Island and King Island in partnership with Hydro Tasmania of Australia
- **Capacity Development:** lessons from electric bus fleet operation in London City, Beijing or Tokyo
- **New Technology Training and Energy Forecasting:** training on system planning and forecasting jointly organized with Argonne National Lab including a visit to Tesla electric car and battery factory

# 1<sup>st</sup> CAREC ENERGY INVESTMENT FORUM

24 October 2016, Serena Hotel, Islamabad, Pakistan

**The 1<sup>st</sup> ENERGY INVESTMENT FORUM (EIF) seeks to provide CAREC countries the opportunity to:**

SHOWCASE  
SUCCESSES

IDENTIFY  
REGULATORY  
GAPS FOR  
INVESTING IN  
THE ENERGY  
SECTOR

UNDERSTAND  
INCENTIVES  
FROM  
ATTRACTING  
PRIVATE SECTOR  
INTEREST (LOCAL  
&  
INTERNATIONAL)

FORGE POSSIBLE  
FINANCING  
PARTNERSHIPS

# EIF PROGRAM AT A GLANCE

The EIF will highlight investment opportunities in the CAREC countries by bringing together key government officials, project developers/sponsors, project financiers, equipment manufacturers, and EPC contractors.

## Session 1

**CAREC Governments' Investment Promotion Thrusts:** Senior energy government officials will highlight incentives their governments have put in place to attract investments in general, and in the energy sector.

## Session 2

**Investing in CAREC Countries:** Private entities will share their experiences on successful investments in the CAREC countries.

## Session 3

**Financing Energy Projects:** A panel discussion highlighting what project financiers seek in financing projects in the region.

# For Guidance of the Senior Officials



**Senior Officials' Meeting on Central Asia Regional Economic Cooperation**

# For Guidance of the Senior Officials



## Delivering the Paris Agreement

- **ESCC actions** to deliver Intended Nationally Determined Contributions (INDC)
- Assess the adequacy of current **mitigation and adaptation training programs** for ESCC
- Recognize the need for **climate impact mapping of CAREC countries**

# Support for the 1<sup>st</sup> Energy Investment Forum (EIF)



- **Participation** of senior delegates
- **Possible partnerships** with Board of Investments (or equivalent) of each country
- **Endorse** List of Priority Project
- **Support** promotion of EIF related activities (website, social media, etc.)
- **Nominate** EIF Focal in each country