

**RWE**



# **CCPP Denizli – *Increased performance despite Covid impacts***

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# Disclaimer

This document contains forward-looking statements. These statements reflect the present opinions, expectations and assumptions of the management and are based on information the management has at its disposal at the present time. Forward-looking statements contain no guarantee for the occurrence of future results and developments and are associated with known and unknown risks and uncertainties. The real future results and developments can therefore on the basis of different factors fundamentally deviate from the expectations and assumptions expressed here. These factors particularly include changes in the general economic situation and the competitive situation. In addition, the developments in the financial markets, exchange rate fluctuations, national and international changes in the law, particularly regarding tax regulations, and other factors can have an influence on the future results and developments of the company. Neither the company nor a company associated with it takes on an obligation to realise the statements contained in this announcement.



# Agenda

## Topics

- 1. Company Profile**
- 2. Company Financials, KPIs & Projections**
- 3. Assessment of Future Potential of Turkish Market**
- 4. Gas Market & RTG's Gas Position in 2021**
- 5. Final Remarks**

# 1. Operational Excellence

RTG continues to achieve sales prices with a premium to day ahead market base price

Performance	Gas Consumption (mcm)	Generation (GWh)	RTG Avr. Sales Prc. (TL/MWh)	SM* Base Prc. (TL/MWh)	RTG Avr. Spark Spread** (TL/MWh)	SM Base Spread** (TL/MWh)
2017	730	3,806	186	164	52	29
2018	581	2,994	280	232	46	-2
2019	519	2,682	343	260	47	-36
2020	813	4,280	326	279	54	7
2021-FY***	820	4,377	576	508	156	88

Technical KPIs	Capacity Factor**** (%)	Tech. Availability (%)	Efficiency***** (%)	Running hours, h/a
2017	60.1%	85.1%	54.4%	6,953
2018	49.0%	97.5%	53.8%	5,364
2019	46.6%	96.8%	53.9%	4,847
2020	64.4%	97.3%	54.9%	7,120
2021-FY***	64.5%	79.3%	55.6%	7,591

\* Spot Market

\*\* Calculated with 56.6% efficiency

\*\*\* Realised values as of 20/12/2021 & latest estimations for BoY-21

\*\*\*\* Generation / Available Capacity

\*\*\*\*\* Generation / Gas Consumption

- ISO 27001:2013 Information Security Management System Standard
- ISO 9001:2015 Quality Management System Standard
- ISO 14001:2015 Environmental Management System Standard
- ISO 450001:2018 Occupational Health & Safety Management System Standard
- ISO 50001:2011 Energy Management System Standard

## Key messages

- Maintained ZERO Lost Time Injury record for over 4 years. Operations and Maintenance continued whilst applying strict Covid precautions.
- Average Sales Price is well beyond the DAM price.
- Gas consumption, generation and capacity factor are expected to stay at its high levels in 2021 after a very successful 2020.
- Sharp increase in power demand and persisting drought in 2021 have helped profitability of RTG to increase drastically compared to previous years.

# 2. Company Financials, KPIs & Projections

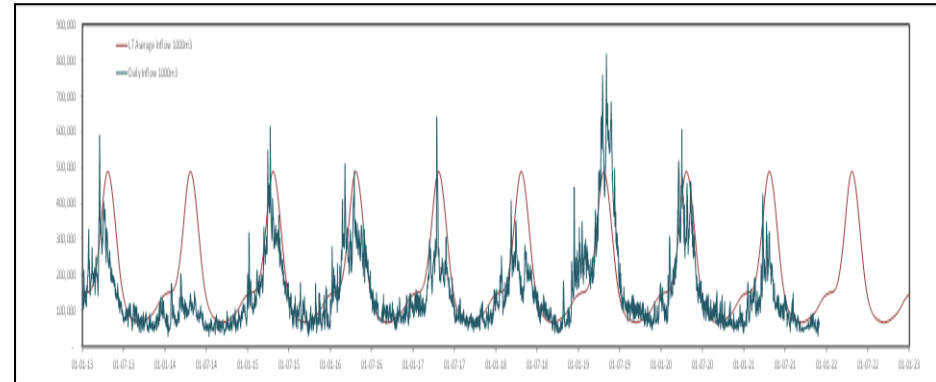
## Key messages

- RTG expects to achieve its highest total margin and gas consumption at year end.
- RTG does not carry any financial liability and protects its strong balance sheet. RTG's fx denominated liabilities are only limited to long term maintenance contracts.
- We expect the Gross Profit and EBITDA figures to increase in the upcoming years mainly due to demand growth and no addition to the base load generation capacity. RTG is expected to continue receiving capacity mechanism payments.

### RTG - Actuals in m TL

mTL	2019 FY	2020 9M	2020 FY	2021 9M
<b>Gross Profit</b>	<b>77.6</b>	<b>100.2</b>	<b>161.6</b>	<b>246.6</b>
<b>EBITDA</b>	<b>-2.1</b>	<b>23.0</b>	<b>83.6</b>	<b>187.7</b>
<b>Capacity payments</b>	<b>55.6</b>	<b>49.8</b>	<b>67.2</b>	<b>53.2</b>

### Daily historical inflow vs LT average

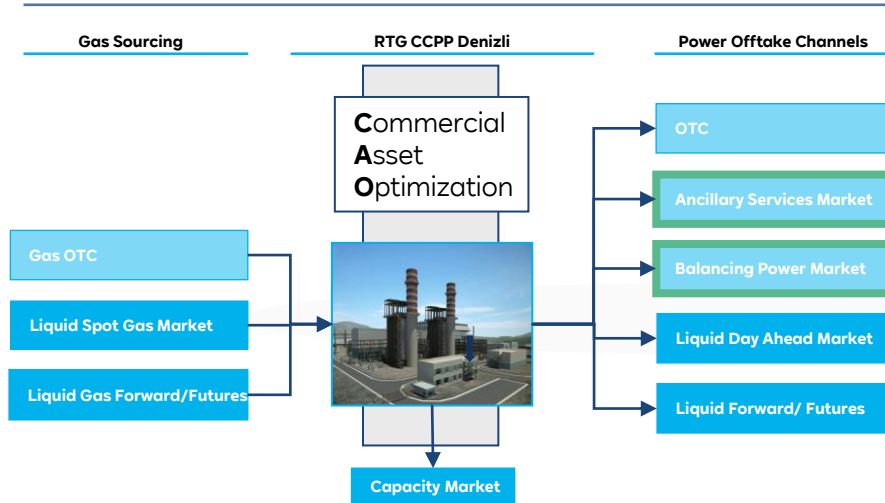


Source: TFRS figures

# 3. Assessment of Future Potential of Turkish market

## Green Deal will change the energy markets for good while liberalization is still the key to an effective transition

### Power plant operation in a liberalized energy market



### Operator's objectives...

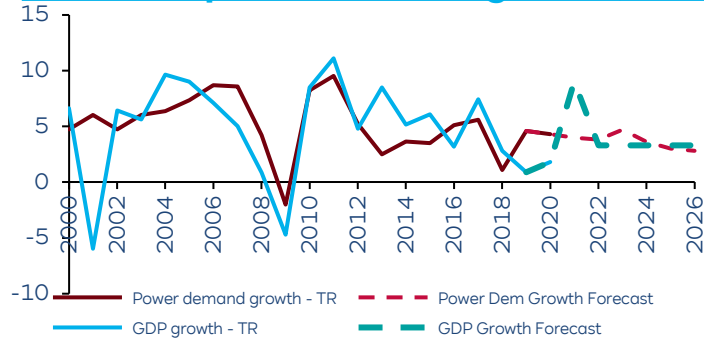
- 1 Support market integrity with prudent commercial operations
- 2 Achieve sustainability in annual results
- 3 Exploit market opportunities
- 4 Create stable basis for planning

Within the context of the Green Deal Action Plan of Turkey, it is expected that a carbon pricing mechanism will be established in the upcoming years. With the carbon pricing mechanism, gas fired power plants are expected to gain a competitive advantage against coal fired power plants.

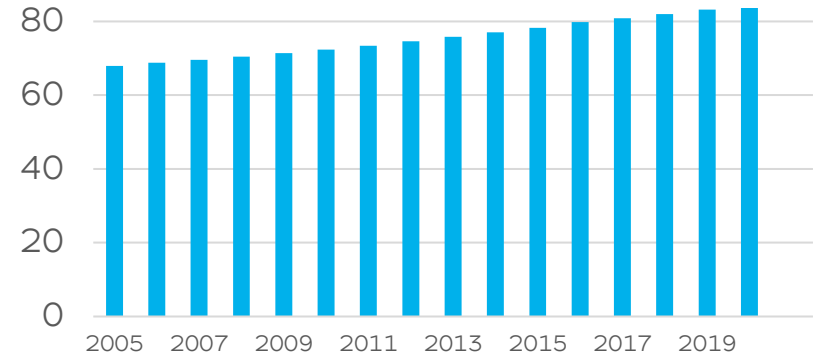
Especially in the power markets outlined above in green, Denizli CCGT is expected to create more value with the increasing renewable penetration utilizing its flexibility.

# Turkey's recovery process has started with increasing industrial production and export fuelled economic activity

## GDP\* and power demand growth, %



## Population, Total (in millions)



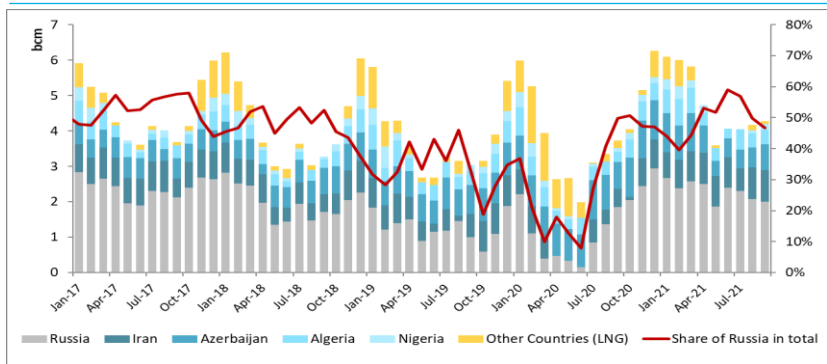
## Facts

- Main driver for GDP growth is industrial production.
- Turkish electricity demand is expected to grow 3-4% in 2021 onwards.
- To meet this demand, Turkey has over 99 GW of total installed capacity as of Nov-21.

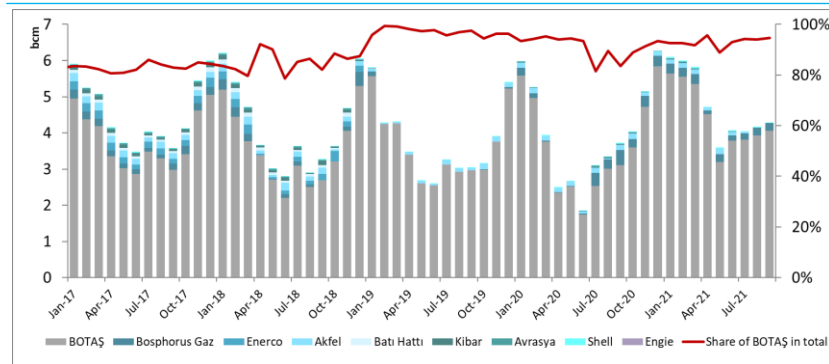
# 4. Gas Market

## Expiring gas contracts lead to higher gas costs for BOTAŞ

### Natural Gas Imports by Country



### Natural Gas Imports by Company



Increased LNG prices in 2021 forced BOTAŞ to depend more on pipeline gas, increasing Russian share in imports.

The ongoing disputes of private importers prevented them from importing gas in 2021 mostly and created a high BOTAŞ share (around 93%) in the market. As of Sept only 2.75 bcm/a is active out of the total 10 bcm/a private LT contracts .

Expiring LT contracts in 2021 (6.6 bcm/a in April, 1.9 bcm/a in October, 8 bcm/a in December) resulted in a quest for new alternatives. It is estimated that the consumption of 2022 will be close to 2021 (~61 bcm); and the current LT contracts (43 bcm/a) will be insufficient to meet the demand. BOTAŞ works on managing the demand through:

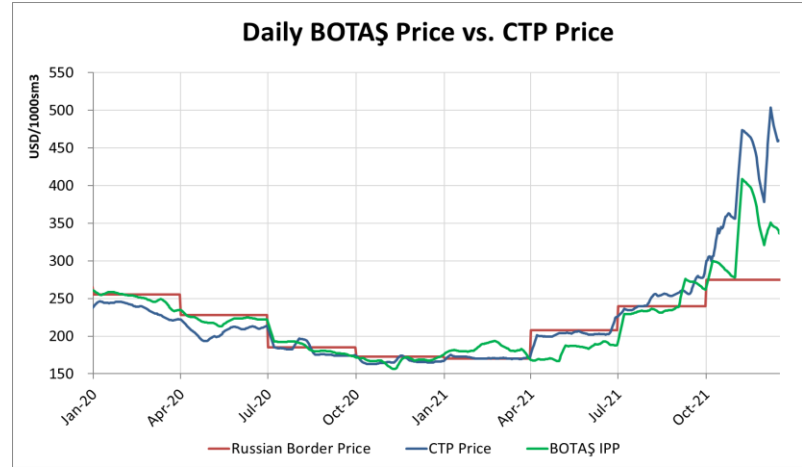
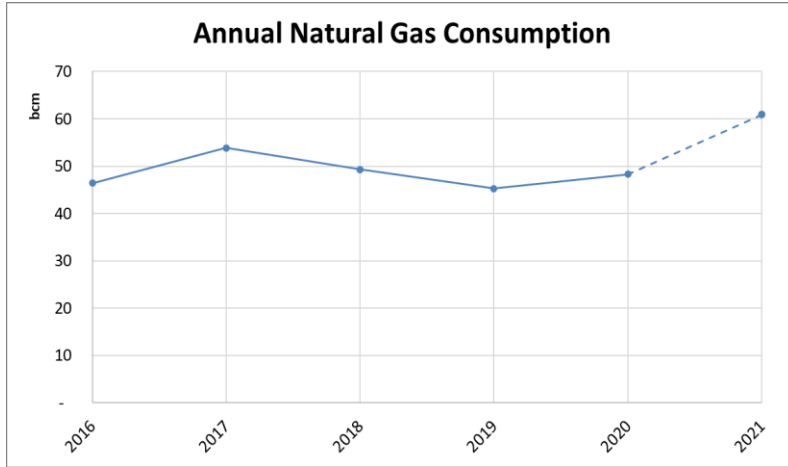
- Spot pipeline contracts with existing pipeline import routes.
- Renegotiating the expiring contracts.
- Signing new LNG contracts.

All these options are expected to lead BOTAŞ to use comparatively high gas prices in 2021 & 2022.



# Gas Market

## Record High Consumption Levels



2021 has been a drought year that caused hydro PPs to operate in low capacity factors. This caused higher generation from CCPPs comparing to previous years which primarily increased the overall natural gas consumption. It is expected that the annual consumption will reach 61 bcm by the end of this year. CCPP consumption is expected to increase to 21 bcm. Comparing to 13.5 bcm in 2020, CCPP consumption counts for 57% of the increase in gas demand in 2021.

CTP transactions have decreased in 2021 because of the unavailability of private suppliers and high spot natural gas prices globally. Many CCPPs (including Denizli CCPP) preferred to increase their BOTAŞ shares within the course of 2021 which also shrank the total transactions in CTP.

# RTG optimized gas portfolio - 2021

Via its subsidiary RWE&TURCAS Doğalgaz İthalat ve İhracat AŞ, RTG optimized its gas purchases between Jan-21 and May-21 utilizing;

- BOTAŞ contract,
- Spot and longer term private OTC contracts
- The Continuous Trading Platform (CTP)

CTP was mostly used for balancing purposes within this period.

Denizli CCPP increased its BOTAŞ share from 25% to 100% in Jun-21 for the rest of the year to eliminate supply risk due to the uncertainties in the gas market and benefit from BOTAŞ prices.

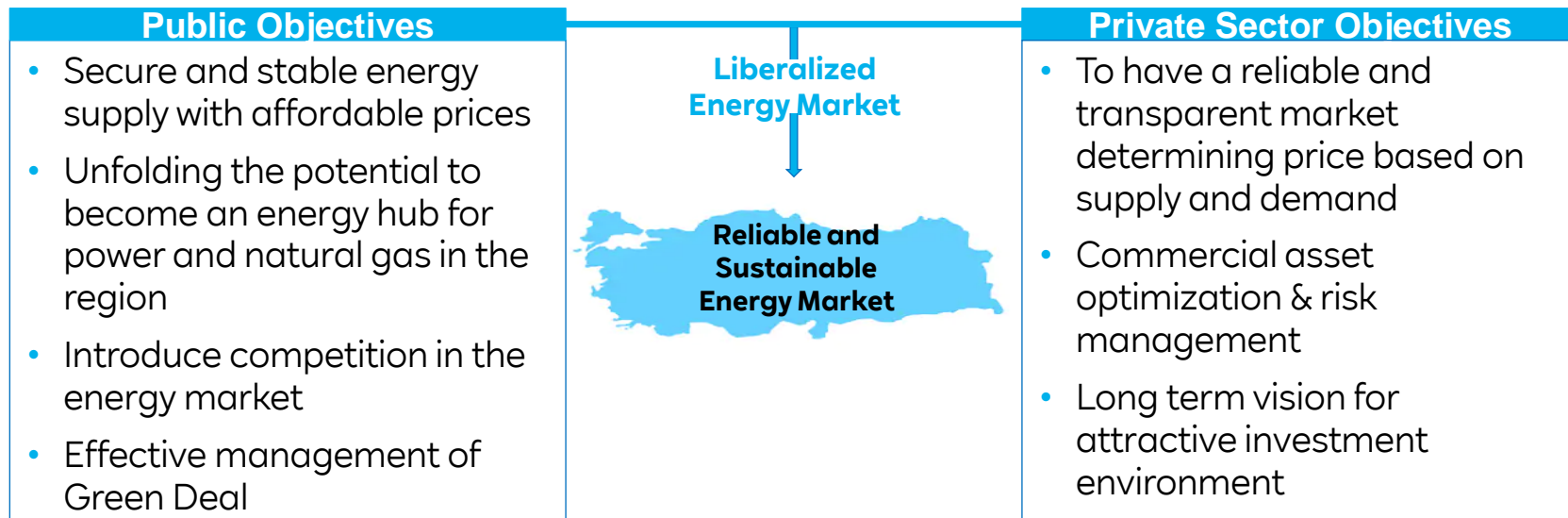
Increasing the share of BOTAŞ and applying for increasing its contracted volume early in the year created supply security when optimizing its generation according to Day Ahead Market prices.

Gas supply scenarios for next year's consumption will be continuously reviewed throughout the year.

RTG's strong financial position helps the company to stay flexible with regards to gas supply decisions.

## 5. Final Remarks

Turkey has come a long way towards a liberalized market yet still significant progress is needed



**A liquid market place where spot and derivatives markets work efficiently will increase security of supply and attract investment...**

**RWE**



**Thank you very much for your  
attention**

**RWE**



**Back-up slides**

# Company Profile

## RTG – Contribution to secure electricity supply in Turkey

**2008**



Establishment of RWE Turkey in Istanbul

**2010**



Partnership with Turcas for Denizli Gas-Fired Combined Cycle Power Plant (CCGT) investment decision - Construction started

**2013**



Commercial Operation started in August

**2014**



ICCI Energy Awards : first place in the category of natural-gas-fired thermal power plants

The Turkish Healthy Cities Association: Environmentally Friendly Facility Award



**RWE**  
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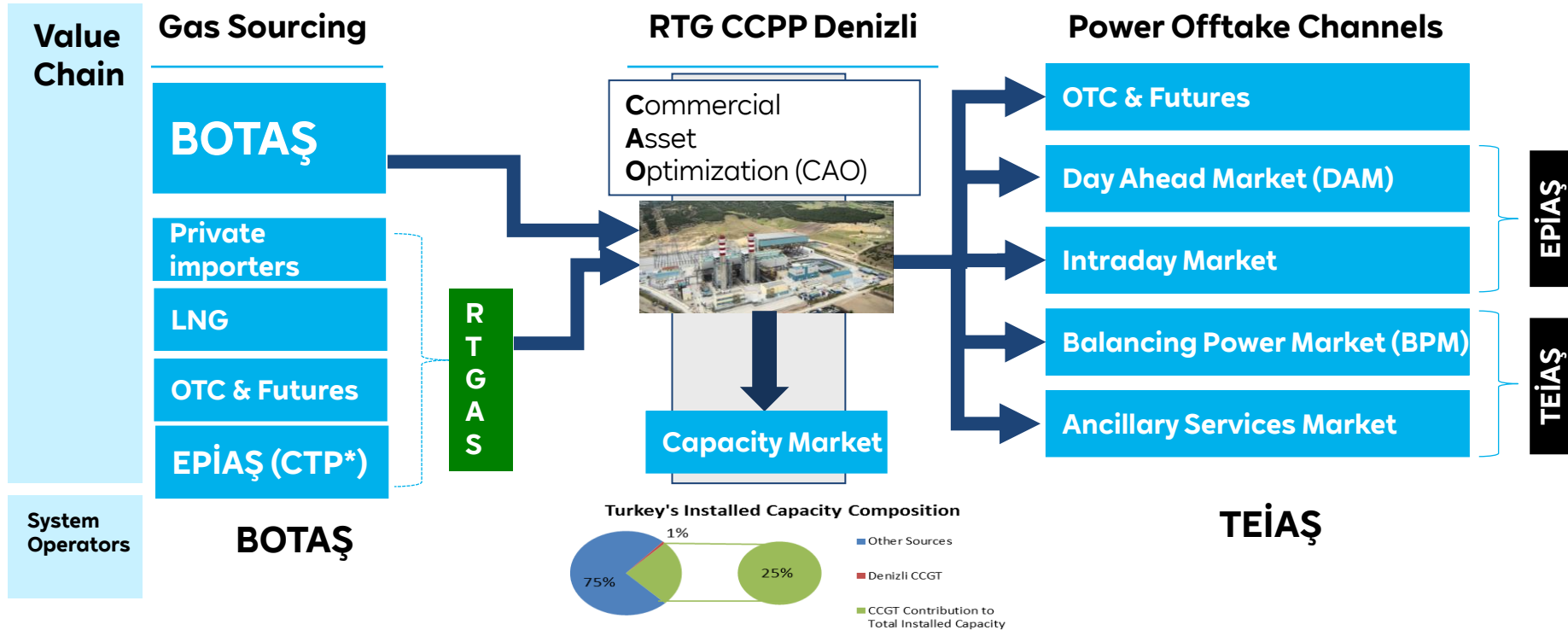
**TURCAS**  
%30

Commercial operation:	August 2013
Installed capacity:	800 MW
Full Load Efficiency :	56.6%
Residential customers equivalent:	> 3.5 mio

### Key messages

➤ RTG is running with technical excellence and is available to ensure sustainability in Turkish energy supply.

# RTG creates value by optimizing gas strategies and through capacity mechanism scheme



## Key messages

- RTG utilizes day ahead market effectively thanks to RWE's international expertise.
- Utilization of RTGas adds flexibility to supply RTG.