

# Energy and Security of Supply

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**Date:**

**Institution :** University College Cork

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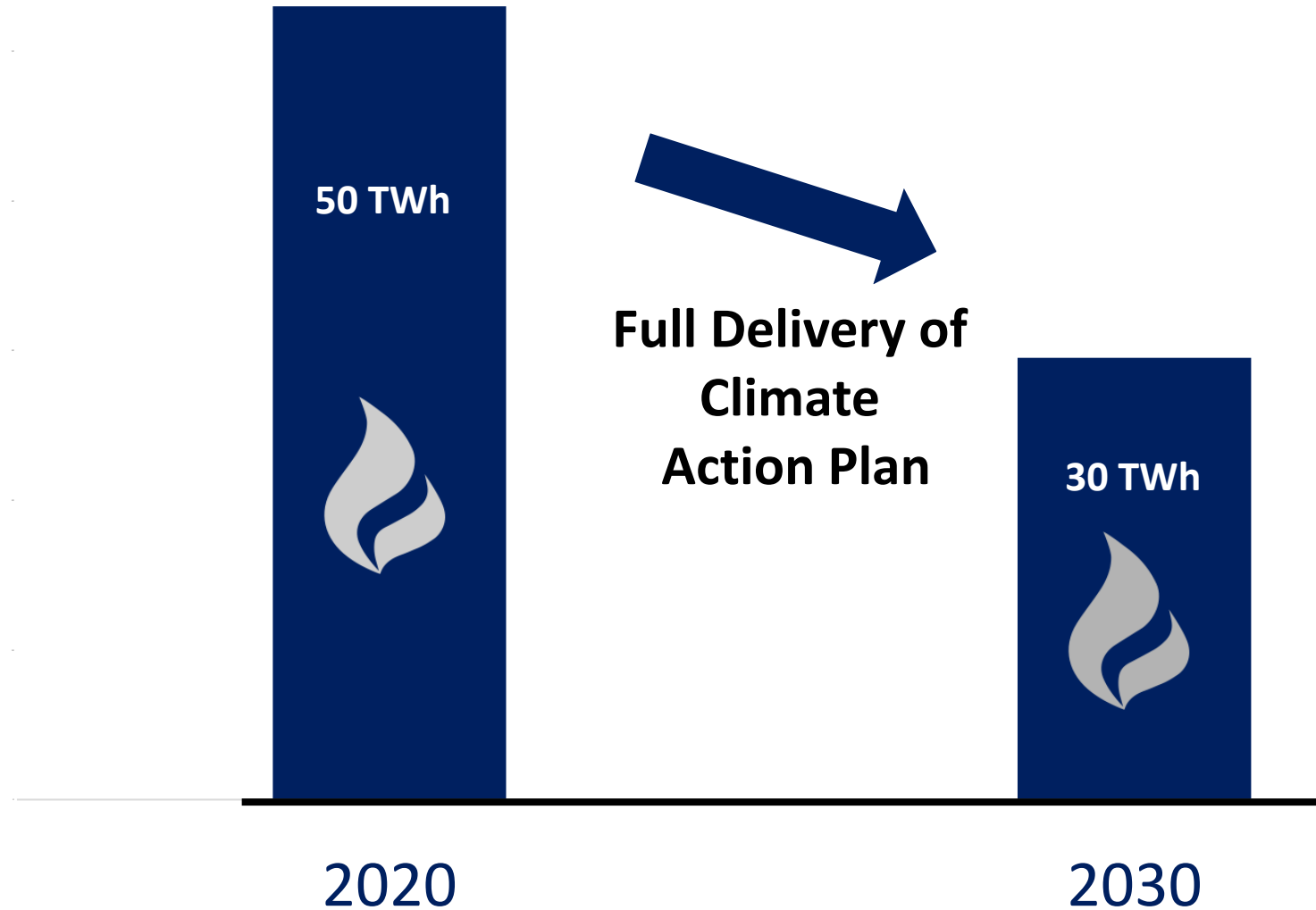


- ❖ The current geopolitical situation requires Ireland to re-evaluate our energy security position in relation to gas and gas infrastructure
- ❖ Ireland is one of the most fossil fuel dependant countries in Europe (86%)
- ❖ Energy security is as much about prices as physical supply
- ❖ Successful delivery of the Climate Action Plan **will reduce** but **not eliminate** the use of natural gas in Ireland
- ❖ Successful delivery of the Climate Action Plan **will reduce the risk** of fossil fuel lock-in from an environmental aspect **but it will increase** the economic challenging in delivery
- ❖ Extremes not averages define the size of any future gas infrastructure needed



How much natural gas will we need into the future

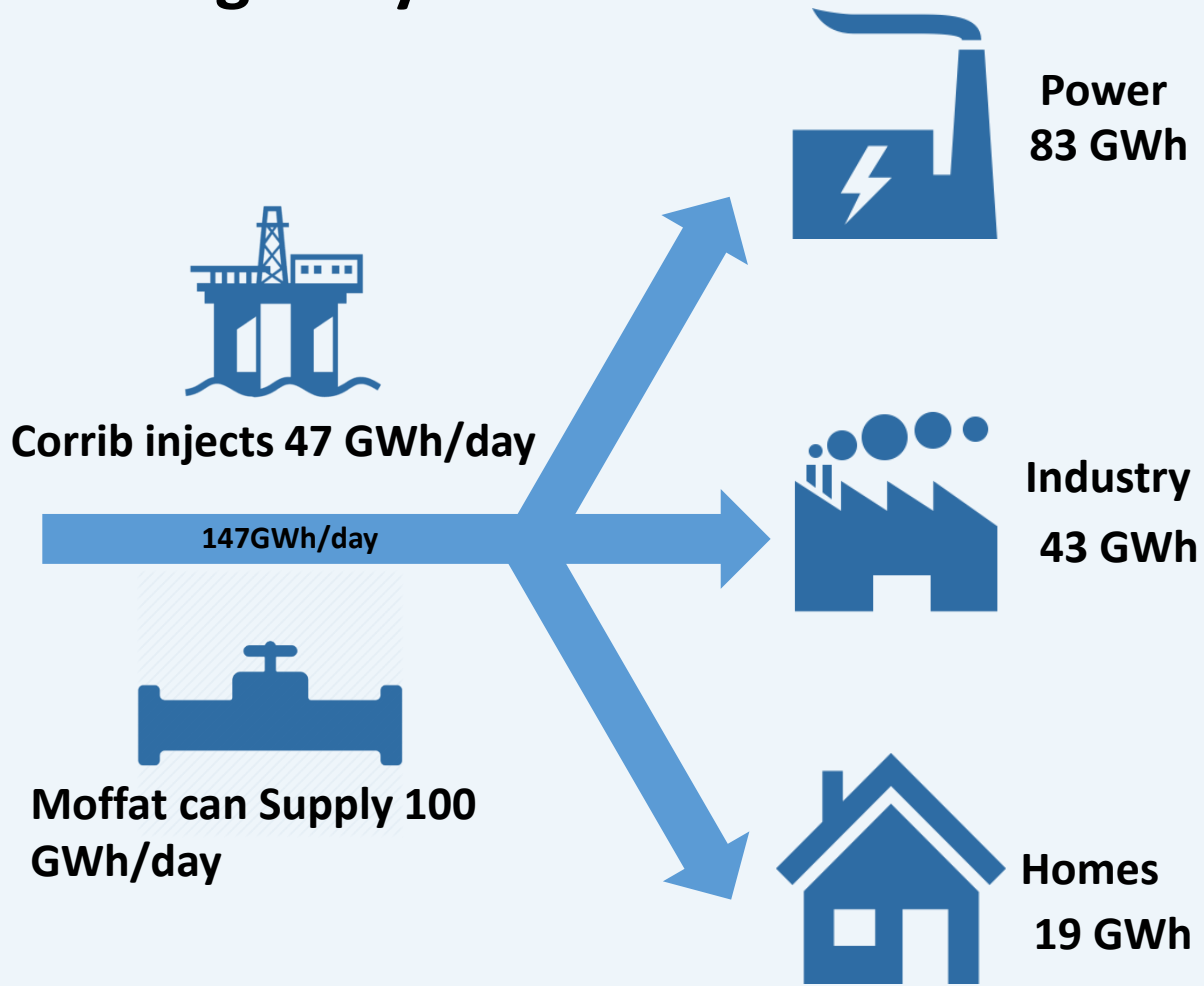
# How much natural gas will we need into the future



**With the successful delivery of the Climate Action Plan on aggregate over the year less gas will be used but on individual days more may be needed.**

**It is extremes not averages define the size of infrastructure needed**

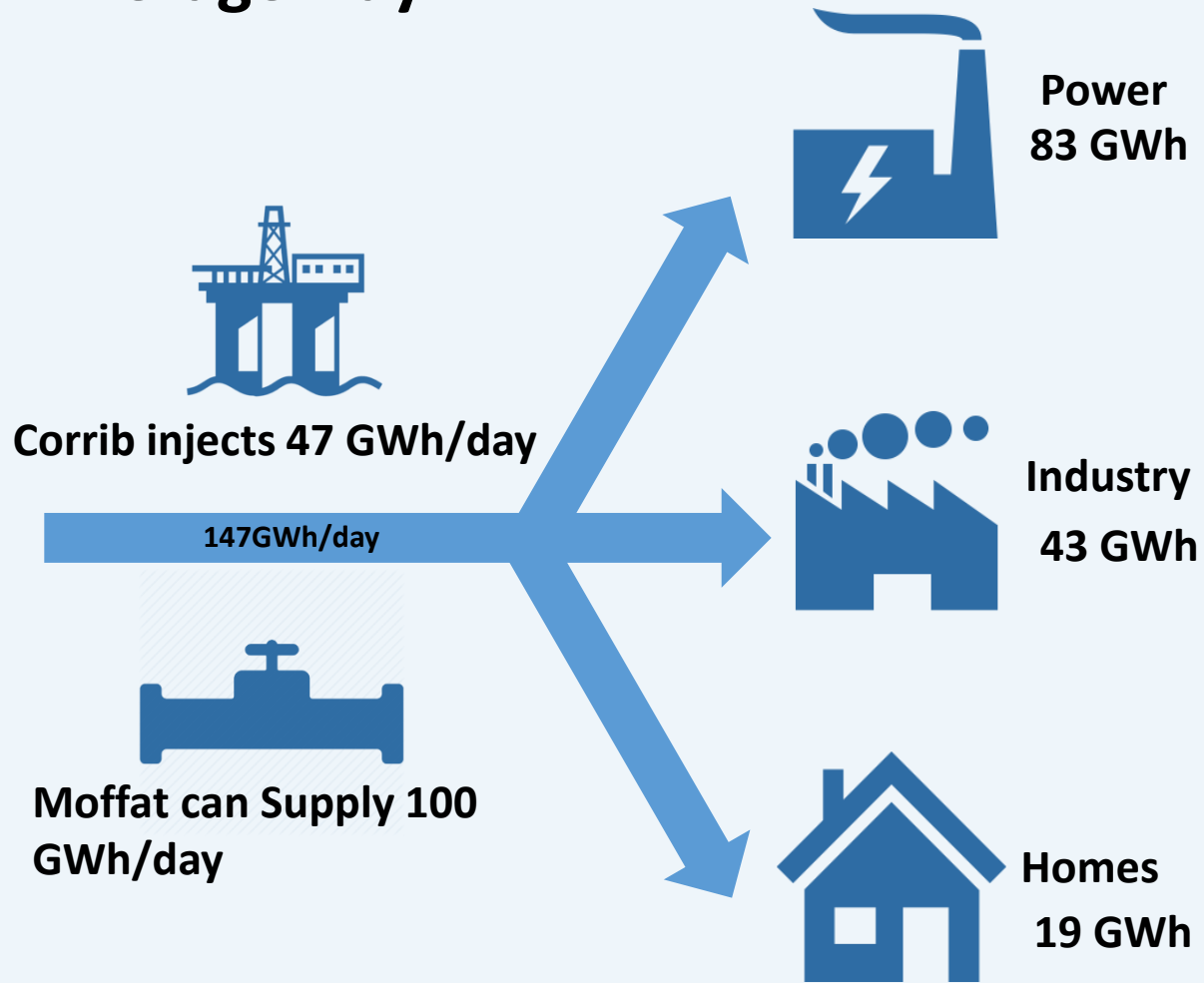
# Average Day



**Supply**

**Demand**

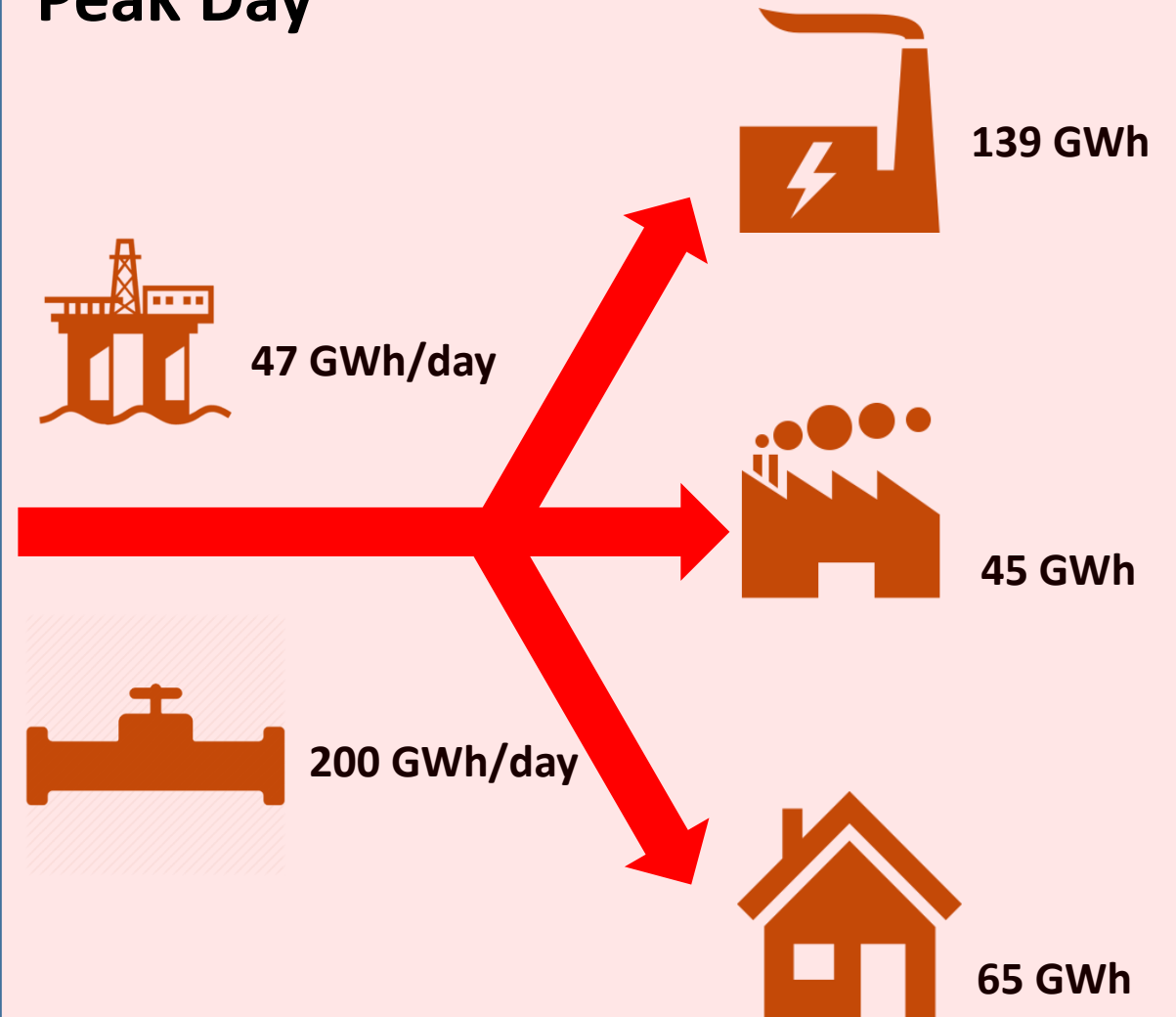
## Average Day



Supply

Demand

## Peak Day



Supply

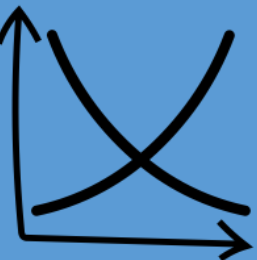





Demand

# Energy Security Challenges for Next 15 Years

## Challenges To Overcome

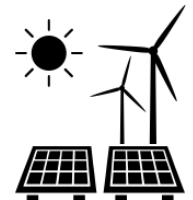
- Enhance Energy Security
- Avoid Lock In of Redundant Infrastructure
- Reduce Emissions as per Carbon Budgets

## Options We Must Understand

					
<b>Demand Reduction</b>	<b>Oil Storage</b>	<b>Gas Storage</b>	<b>Indigenous Gas</b>	<b>Imported LNG</b>	<b>Interconnection</b>
Immediate impact Politically unpopular	Reduces physical risk but not price risk (in place through NORA)	Geologically availability Energy Limited Time to establish	Unknown potential Reduces physical risk Time to establish	Reduces supply risk. Time to establish Upstream emissions	Diversify electricity supply. Limited to power sector

## Actions We Must Take

Delivery Climate Action Plan | Reduce Energy Demand | Increase Renewable Energy | Encourage Electrification





# Thank you

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