



# District Cooling Policy Framework

Abu Dhabi, UAE

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# Agenda

- 1 Background and Rationale for DC Regulations in UAE
- 2 Framework Considered
- 3 Regulations Adopted

# Strategic Rationale for DC Regulation in the UAE

Hindrances in the sustainable growth of DC sector








## District cooling challenges

DC Provider	1 Pre-investment burden and capital planning	<ul style="list-style-type: none"> <li>• Risk involved in upfront investments in networks and plant, while the timing and magnitude of loads and revenues remains uncertain</li> <li>• Limited enforceability of payment obligations – lack of disconnection rights and connection designs render providers vulnerable to non-payment</li> </ul>
	2 Issues in planning and procurement mechanisms	<ul style="list-style-type: none"> <li>• Misalignment in capacity planning potentially leading to increased tariffs</li> <li>• No uniform procurement process potentially limiting tariffs competitiveness</li> </ul>
Developer/customer	3 Absence of standards and codes	<ul style="list-style-type: none"> <li>• Lack of technical and performance standards</li> </ul>
	4 Lack of customer protection mechanisms	<ul style="list-style-type: none"> <li>• Local monopolies with high switching costs</li> <li>• Limited awareness of consumer rights and obligations</li> <li>• Limited understanding of DC cost allocation and tariffs</li> </ul>

Negative reputation, higher risk and less bankability of the DC sector

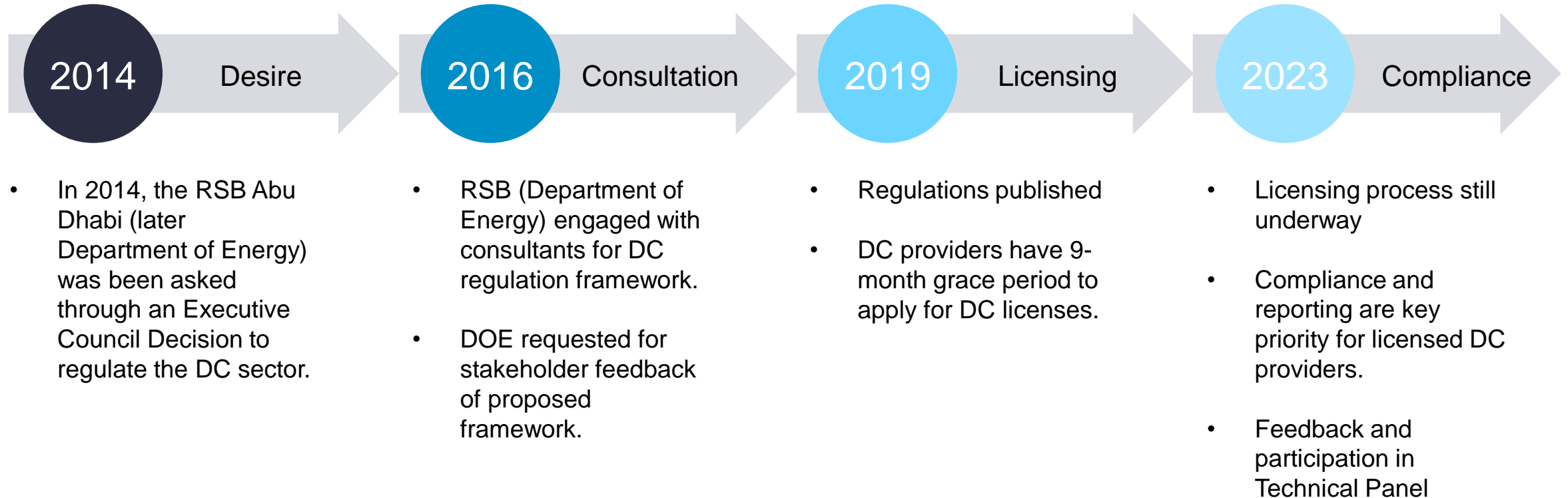
# Framework Considered

## Regulatory levers and examples

Technical		Economic			Legal	
Mandating	Technical standards	Price regulation	Market competition	Financing support	Licensing	Contractual frameworks
<ul style="list-style-type: none"> <li>Mandate district cooling in areas or developments that meet predefined criteria</li> </ul>	<ul style="list-style-type: none"> <li>Set of standards for design and operation of the DC systems. Establish guidelines for calculating demand</li> </ul>	<ul style="list-style-type: none"> <li>Consistent pricing and billing for DC to ensure fairness and transparency</li> </ul>	<ul style="list-style-type: none"> <li>Introduce regulations to ensure competitive bidding and fair competition</li> </ul>	<ul style="list-style-type: none"> <li>Government entity intervention to support capital funding.</li> <li>Review of electricity tariff structure</li> </ul>	<ul style="list-style-type: none"> <li>Grant licenses to operators, providers, and retailers</li> </ul>	<ul style="list-style-type: none"> <li>Defined rights and obligations</li> </ul>
						
<ul style="list-style-type: none"> <li>In Denmark, municipalities mandate the connection to the district heating system in designated district heating zones.</li> </ul>	<ul style="list-style-type: none"> <li>Singapore's Supply Code defines a set of standards and Provider is required to submit estimates of cooling demand to the regulator.</li> </ul>	<ul style="list-style-type: none"> <li>In Singapore, prices are capped at level of least-cost conventional alternative.</li> </ul>	<ul style="list-style-type: none"> <li>The Swedish Energy Market Inspectorate and Competition Authority supervise the competitiveness of the DC market.</li> </ul>	<ul style="list-style-type: none"> <li>In Norway, the Energy authority (ENOVA) is empowered to support DH projects with financial grants.</li> </ul>	<ul style="list-style-type: none"> <li>In Lithuania, each licensed company has to present data of technical reliability, efficiency, operation cost.</li> </ul>	<ul style="list-style-type: none"> <li>Singapore's Supply Code defines a set of standards for minimum requirements.</li> </ul>

# Regulations Adopted

## Implementation and Current Status



# Regulations Adopted

## Proposed Regulatory Framework (2019)

	Technical	Economic			Legal	
Mandating	Technical standards	Price regulation	Market competition	Financing support	Licensing	Contractual frameworks
<ul style="list-style-type: none"> <li>• <b>No mandating</b></li> <li>• Even if DC has the lowest cost; developers are not obliged to choose DC.</li> <li>• Concept of authorised service areas</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Stringent KPI's and performance reporting requirements</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Project Return is capped</b></li> <li>• DOE set out pricing instructions which must be adhered to and cost recovery mechanisms.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Regulated RFP process which DOE is a part of.</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Currently no financial incentives</b></li> <li>• DC regulations seek to pass back cost savings to customers, and to ensure DC providers to not make "excess returns".</li> </ul>	<ul style="list-style-type: none"> <li>• <b>License required for each legal entity.</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Minimum terms of reference for cooling service agreements</b></li> </ul>

**Government is a regulator only; role is restricted to setting and enforcing rules and regulations for the DC sector.**

# Take Aways

- Regulations have a positive impact on the DC sector
- Communication is key
- Regulations and policies follow an iterative process
- Opportunities for collaboration and innovation