



Morgan Lewis

**NOW. NORMAL.  
NEXT.**

**An Energy Industry  
Webinar Series**

**Current Regulatory and Policy  
Issues for Microgrids**

Brooke McGlinn, Pejman Moshfegh and Arjun  
Ramadevanahalli | July 31, 2020

© 2020 Morgan, Lewis & Bockius LLP

**NOW. NORMAL. NEXT.**

# Presenters



**Brooke McGlinn**



**Pejman Moshfegh**



**Arjun  
Ramadevanahalli**

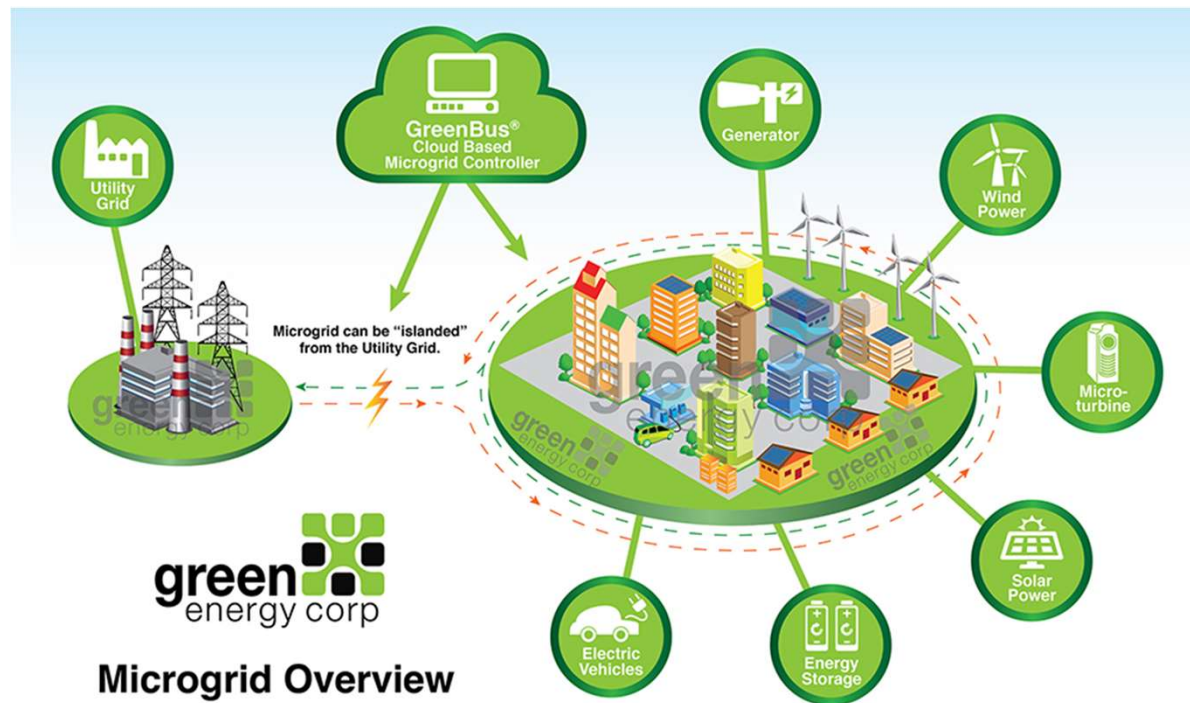
**Morgan Lewis**

**NOW. NORMAL. NEXT.**

**STATE REGULATORY  
ISSUES IN  
MICROGRID  
DEVELOPMENT**

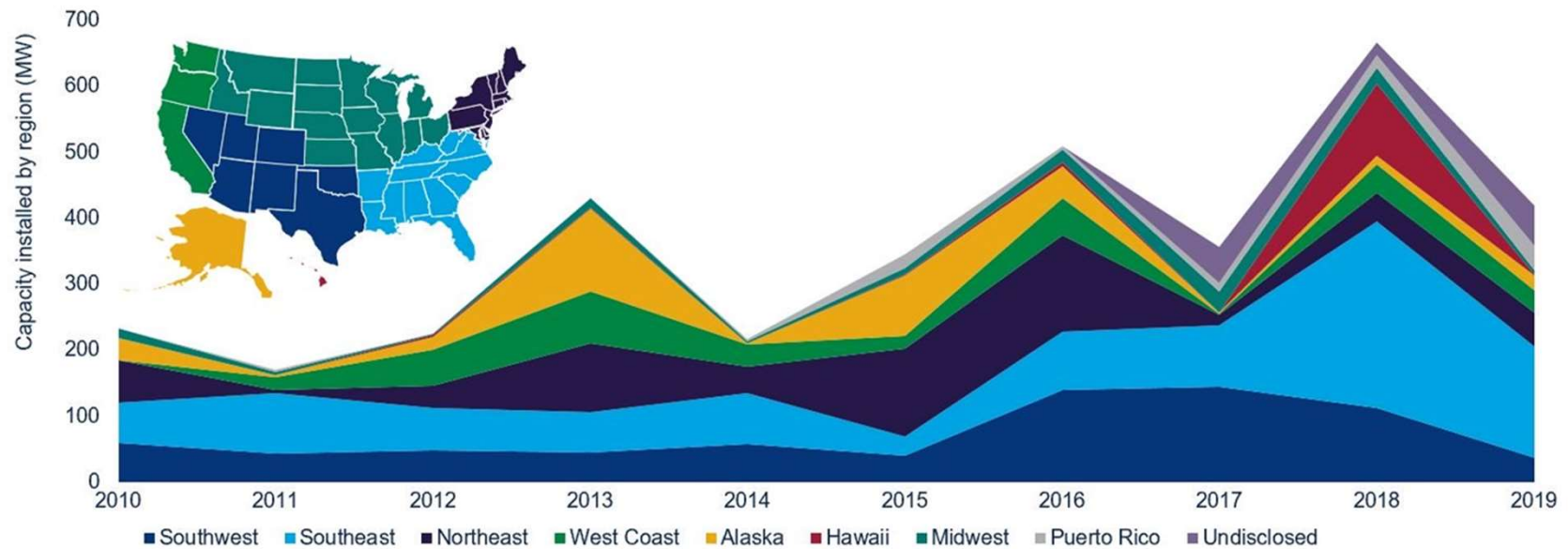
**Morgan Lewis**

# What is a microgrid?



# U.S. Microgrid Capacity Snapshot

Annual installed microgrid capacity by region in the United States



Source: [Wood Mackenzie Power & Renewables, Microgrid Tracker](#)

# Types of Microgrids

- DOE Definition: A microgrid is a group of interconnected loads and distributed energy resources (DER) within clearly defined electrical boundaries that act as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both grid-connected and island-mode.
- "Campus" Microgrid: A microgrid serving a single customer within a discrete area (e.g., university, corporate office park, military base), which may include customer distribution infrastructure.

## Types of Microgrids (Cont.)

- “Community” Microgrid: “No less than one facility providing a critical service to the public that is connected to multiple, uniquely owned/controlled buildings that act as a group of interconnected loads and distributed energy resources, lie within a clearly defined electrical boundary and act as a single controllable entity, which can connect and disconnect from the surrounding utility grid and operate in both grid-connected or island mode.” (NY Prize)
- Variations: Single-building, remote locations, utility infrastructure.



ComEd Bronzeville community microgrid in Chicago, Illinois

Source: T&D World (July 2019)

# Microgrid Development Today

- Growing market for microgrid projects
  - Navigant Research currently forecasts that microgrid capacity will reach 15.8 GW by 2027
- Declining distributed energy resource costs
- More states are exploring ways to transform microgrids into a cost-effective tool that helps meet future energy goals
  - **Sacramento, California:** Sunverge Energy and Municipal Utility District partnered to build microgrids in a single-family housing complex
  - **Champaign, Illinois:** Ameren deployed one of the most advanced utility-scale microgrids in North America at its technology operations center next to the University of Illinois that can power up to 200 local distribution customers during outages



2500 R Midtown Development Project in Sacramento, California.



# Benefits of Microgrids

- Increased electric-grid resiliency and reliability is a key issue for communities that face increasing extreme weather events and wildfires
  - A single power shut-off can result in community going without power for several days
  - The average cost of a power outage in the U.S. is \$100,000 per hour, according to Navigant Research
- Increased energy security for healthcare facilities amidst COVID-19
- Reduces carbon emissions and helps states and corporations achieve clean energy and sustainability goals



## Benefits of Microgrids (Cont.)

- Intermittent renewable energy integration
  - Main grids are designed to handle large generators with stable output, which makes it difficult to integrate intermittent renewable energy sources
  - Microgrids can effectively manage local intermittency of renewable generator output
- Energy cost savings for end use customers through demand management for utility bill reduction and energy arbitrage
- Community empowerment
  - Allows residents to scale-up from the individual level
  - Decentralizes energy issues from federal and state-level policy to local interventions

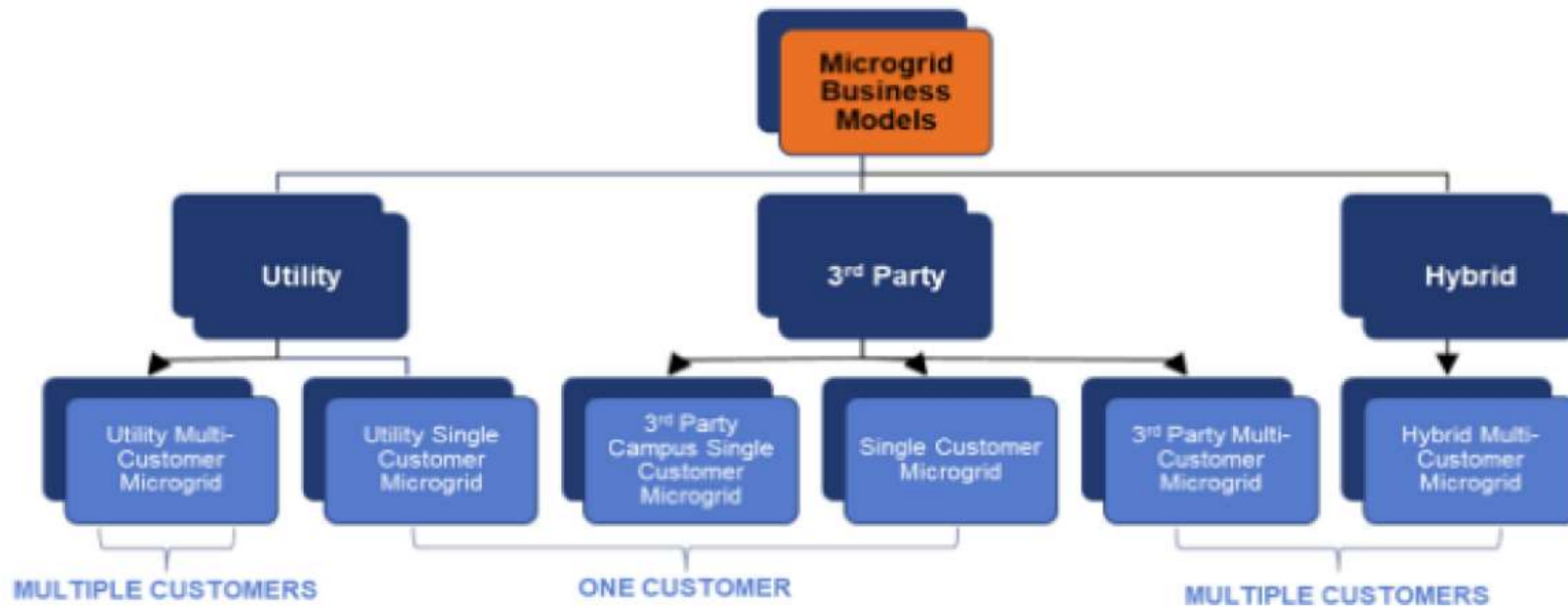


**Morgan Lewis**

# What Types of Incentives are Emerging at the State Level?

- In recent years, several states have introduced policies and incentives to support the deployment of microgrid technology.
  - Financial incentives and government authorized solicitations: CT, NJ, NY, MD
  - Legislation addressing existing barriers to microgrid deployments : CA, CT, HI
    1. Connecticut, P.A. 12-148 § 7
    2. California, S.B. 1339
    3. Hawaii, H.R.S. 269-46
  - Approval of utility rate-basing of microgrids
    1. California, S.B. 1339
    2. Hawaii, H.R.S. 269-46

# Emerging Microgrid Business Models



Source: Smart Electric Power Alliance, 2019.

**Morgan Lewis**

# Policy Issues: Ownership and Control

- States are considering how to define microgrids to allow ownership, operation and energy sales by customers, private developers and/or utilities. Key questions include:
  - Will ownership and operation of a community microgrid violate utility franchise rights and/or trigger public utility regulation?
  - Are utilities permitted to own microgrid DER assets and/or sell power and ancillary services associated with those assets into wholesale markets, or otherwise off the microgrid? Is energy storage in a microgrid generation?
  - If third parties can operate microgrids, what rules and regulation should apply to ensure the safety and reliability of service to customers?
  - What is the appropriate level of regulatory oversight over the terms and conditions of service offered by community microgrid operators, including limitations on the right of customers to depart the microgrid?
  - Does a utility have an obligation to serve customers within the microgrid footprint?

## Policy Issues: Cost Allocation and Recovery

- What features of a microgrid justify socialization of costs through utility rates?
- How should resiliency benefits to communities be measured? Value of resilience is contested, and different for different customers.
- Are customers benefitting from a microgrid receiving “premium” service? Should they pay more?
- How should standby charges be calculated?

## Policy Issues: Siting and Interconnection

- What is an optimal location for microgrids and what utility distribution system information should be provided regarding potential candidates?
- What additional requirements should apply to interconnection of a microgrid?
- What design and engineering standards should apply to non-utility microgrid operators?

## Regulatory Developments: California

- Senate Bill 1339 (Sept. 2018)
- Adds § 8370 et. seq to Public Utilities Code
- Requires regulators to develop by December 1, 2020, among other requirements:
  - Microgrid service standards
  - Methods to reduce barriers for microgrid deployment
  - Guidelines that determine what impact studies are required for microgrids to connect to the grid
- CPUC Opened Rulemaking (R.19-09-009) September 2019



# Regulatory Developments: California

- Proceeding R. 19-09-009 divided into three tracks:
  - **Track 1 ← Recently completed**
    - Decision (D.) 20-06-017 Issued June 17, 2020
    - Promulgated array of rules for short-term actions to accelerate microgrid deployment and resiliency solutions.
  - Track 2 ← Current (Scoping Memo Issued July 3, 2020)
    - Focus on developing standards, protocols, methods, rates, and tariffs to support microgrid deployment statewide.
  - Track 3 ← overlaps with Track 2 (Pending)
    - Will consider ongoing implementation requirements of SB 1339 and future resiliency planning

# Regulatory Developments: California

## Track 1

- Goal of deploying resiliency planning in areas prone to outage events and wildfires by Summer 2020.
- Focused on three broad categories to foster microgrid deployment:
  1. Prioritizing and streamlining interconnection applications at key locations
  2. Modifying existing tariffs to maximize resiliency benefits
  3. Facilitating local and tribal government access to utility infrastructure and planning data

# Regulatory Developments: California

## Track 1 – Decision (D.) 20-06-017 Issued June 17, 2020 – Key Requirements

1. Prioritizing and streamlining interconnection – Directs IOUs to:
  - i. Create a template-based application process
  - ii. Provide technical criteria used to determine where field inspections are necessary
  - iii. Propose plans to acquire additional staff
2. Modifying existing tariffs to maximize resiliency benefit – Directs IOUs to:
  - i. Form process that will require storage systems to switch to non-export mode before PSPS events.
  - ii. Remove from NEM tariff the storage sizing limit for large NEM-paired storage.
3. Facilitating local governmental access to utility infrastructure data – Directs IOUs to:
  - i. Conduct semi-annual face-to-face county-level workshops
  - ii. Develop a written guide to help local and tribal governments
  - iii. Implement a dedicated utility team for local and tribal government projects
  - iv. Develop a separate, access-restricted portal for local jurisdictions

# Regulatory Developments: California

– **Track 2** – July 3 Scoping Memo Identifies six (6) primary issues for Track 2:

1. Develop microgrid service standards
2. Develop methods to reduce barriers for microgrid deployment
3. Develop guidelines to determine what impact studies are necessary for microgrids to connect to the electrical corporation grid
4. Develop separate rates and tariffs, that are just and reasonable
5. Facilitate formation of a working group to codify standards and protocols needed to meet California electrical corporation and CAISO microgrid requirements
6. Develop standard for direct current metering

– Staff Proposal on Track 2 issued July 22, 2020

## Regulatory Developments: Federal

- Federal Power Act, 16 U.S.C. §§ 791 *et seq.*
  - Confers FERC with jurisdiction over wholesale sales in interstate commerce.
- States retain jurisdiction over retail electric sales.
- Sales from distributed resources can implicate jurisdictional issues.
  - Competing views regarding federal / state jurisdictional line.
- Relevance of net-metering
  - Under FERC precedent, no wholesale sale occurs unless a net metering participant makes a net sale of energy over the billing period.

## Regulatory Developments: Federal

- Order No. 841, Electric Storage Participation in Wholesale Markets
  - NARUC v. FERC, No. 19-1142 (D.C. Cir. July 10, 2020)
- Order No. 872, PURPA Rulemaking
- FERC Order dismissing net-metering petition
  - New England Rate Payers Association, 172 FERC ¶ 61,042 (2020)
- Reliability implications for decentralized grid
  - NERC DER considerations
  - FERC Notice of Inquiry in Docket No. RM20-12 regarding cybersecurity for distributed generating resources

## Biography



**Brooke E. McGlinn**

Philadelphia, PA

+1.215.963.5404

[brooke.mcglinn@morganlewis.com](mailto:brooke.mcglinn@morganlewis.com)

With a practice focus on the energy industry, Brooke E. McGlinn represents electric power, natural gas, and water utilities in court and regulatory proceedings. She counsels developers and investors on financial transactions involving renewable energy, and advises and represents clients in matters involving US state and federal environmental laws.

## Biography



### **Pejman Moshfegh**

San Francisco, CA

+1.415.442.1451

[pejman.moshfegh@morganlewis.com](mailto:pejman.moshfegh@morganlewis.com)

Pejman Moshfegh leverages nearly a decade of experience in California energy and environmental law, including federal and state environmental compliance counseling. Prior to joining Morgan Lewis, Pejman served in the California Public Utilities Commission's Enforcement Division, where he spent eight years investigating various violations of the Public Utilities Code, and supporting enforcement proceedings brought by the Commission.

**Morgan Lewis**



## Biography



**Arjun Prasad  
Ramadevanahalli**

Washington, D.C.

+1.202.000.0000

[arjun.ramadevanahalli@morganlewis.com](mailto:arjun.ramadevanahalli@morganlewis.com)

Arjun Prasad Ramadevanahalli represents electric power and natural gas industry participants in regulatory, transactional, and enforcement matters before the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC). Arjun assists clients on issues relating to wholesale markets, utility transactions, NERC reliability standards compliance (including cybersecurity compliance under the Critical Infrastructure Protection (CIP) suite of standards), rate matters, and enforcement proceedings. Arjun also advises on regulatory and transactional issues relating to energy infrastructure projects, including conventional generation, renewable energy, and natural gas assets.

**Morgan Lewis**

## Our Global Reach

Africa

Asia Pacific

Europe

Latin America

Middle East

North America

## Our Locations

Abu Dhabi

Almaty

Beijing\*

Boston

Brussels

Century City

Chicago

Dallas

Dubai

Frankfurt

Hartford

Hong Kong\*

Houston

London

Los Angeles

Miami

Moscow

New York

Nur-Sultan

Orange County

Paris

Philadelphia

Pittsburgh

Princeton

San Francisco

Shanghai\*

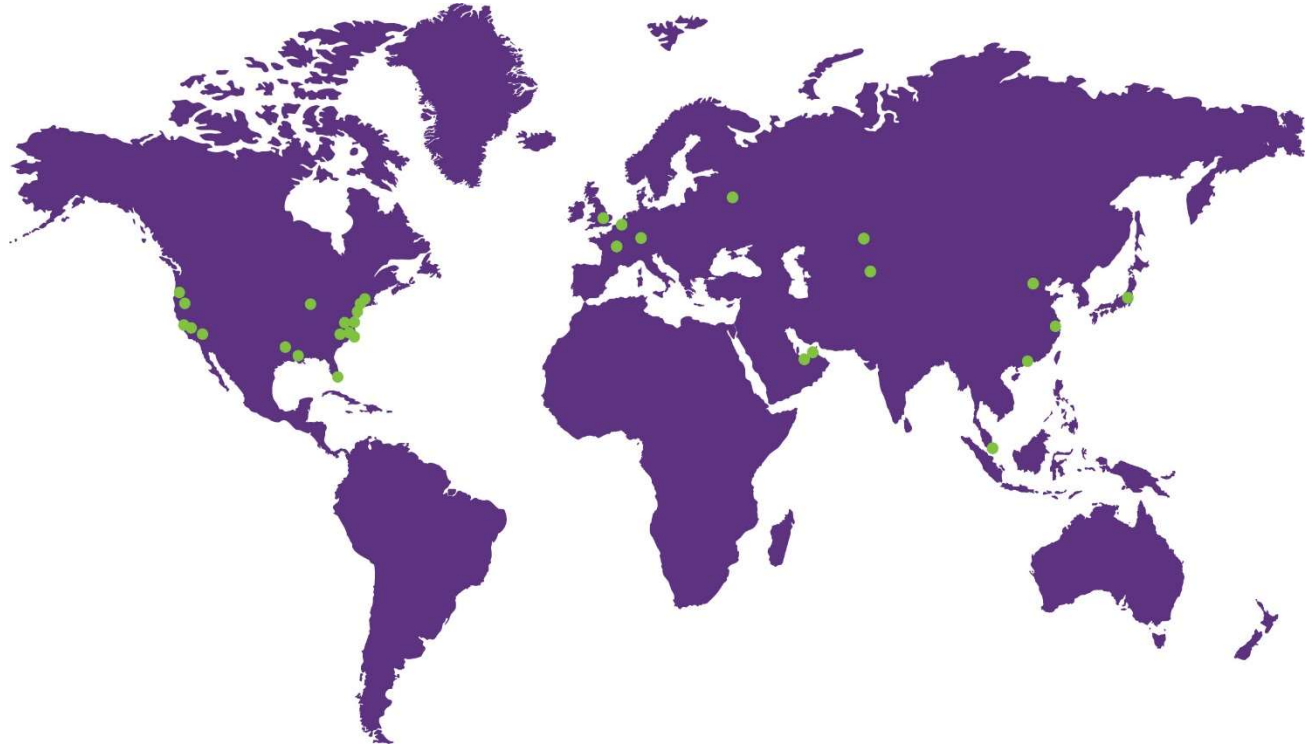
Silicon Valley

Singapore\*

Tokyo

Washington, DC

Wilmington



# Morgan Lewis

\*Our Beijing and Shanghai offices operate as representative offices of Morgan, Lewis & Bockius LLP. In Hong Kong, Morgan Lewis operates through Morgan, Lewis & Bockius, which is a separate Hong Kong general partnership registered with The Law Society of Hong Kong as a registered foreign law firm operating in Association with Luk & Partners. Morgan Lewis Stamford LLC is a Singapore law corporation affiliated with Morgan, Lewis & Bockius LLP.

# THANK YOU

© 2020 Morgan, Lewis & Bockius LLP  
© 2020 Morgan Lewis Stamford LLC  
© 2020 Morgan, Lewis & Bockius UK LLP

Morgan, Lewis & Bockius UK LLP is a limited liability partnership registered in England and Wales under number OC378797 and is a law firm authorised and regulated by the Solicitors Regulation Authority. The SRA authorisation number is 615176.

Our Beijing and Shanghai offices operate as representative offices of Morgan, Lewis & Bockius LLP. In Hong Kong, Morgan Lewis operates through Morgan, Lewis & Bockius, which is a separate Hong Kong general partnership registered with The Law Society of Hong Kong as a registered foreign law firm operating in Association with Luk & Partners. Morgan Lewis Stamford LLC is a Singapore law corporation affiliated with Morgan, Lewis & Bockius LLP.

This material is provided for your convenience and does not constitute legal advice or create an attorney-client relationship. Prior results do not guarantee similar outcomes. Attorney Advertising.

**Morgan Lewis**