資料４

第５回エネルギー情勢懇談会　質問事項
～総合エネルギー企業の経営戦略～

（質問１）「カーボンフリー（脱／低炭素化）」の潮流を踏まえた各社の事業戦略

＜全社共通＞

⇒Q1.現在の事業ポートフォリオを形成するに至った契機・理由は何か、その実現手段（人材確保、組織再編、資金調達等）や各事業の競争の源泉は何と考えるか。また、カーボンフリーと自由化の潮流の中で、今後の資金調達戦略についてどう考えるか。
※今後の事業戦略については、各社ごとに以下の Q2～Q7 でお伺いします。

＜Engie＞～地域エネルギー供給の展開・水素事業への挑戦・ベンチャー投資～

⇒Q2.ガス事業の将来性、熱等の地域エネルギー供給の役割、水素事業の将来性をどう考えるか。更に、近年注力するベンチャー投資（分散電源、エネルギー貯蔵等）に至った背景およびその評価をどう考えるか。

＜EDF＞　～原子力・再エネ　電力ゼロエミ化とデジタル化への挑戦～

⇒Q3. 原子力活用には、社会的信頼の獲得や安全性の向上、そのための技術・人材の維持・育成、コスト削減が重要と考えるが、どのような取組が必要か。加えて、電力事業者として、原子炉メーカーを所有する長短所は何か。また、国内原発比率を低減させていく方針下で、ゼロエミ化加速のための再エネ導入の現状・戦略と、再エネの不確実性や火力の環境性を踏まえ、今後の電力需要への対応・戦略をどう考えるか。

⇒Q4. 再エネや AI／IoT 技術の進展に伴い、電力にもデジタル化対応や新サービス創出（スマートコミュニティ、モビリティとの融合等）といった挑戦が考えられるが、これまでの取組と今後の戦略について伺いたい。

＜Shell＞　～ガスシフト・多角化（再エネ＆水素への投資開始）～

⇒Q5.石油・天然ガス関連事業（上流開発、石油化学、LNG 等）の未来像をどう考えているか。また、再エネ、EV インフラや水素への投資も始めているが、これらの市場の未来像（普及見込み等）と、市場の発展に向けた技術的課題について伺いたい。

（質問２）グローバル戦略　（Engie、EDF）共通

⇒Q6.現在までのグローバル戦略をどう評価し、今後、どのようなグローバル戦略を展開していく予定か。また、その際の中国プレーヤーとの競争や協調をどう考えるか。

（質問３）石油・ガス戦略　（Shell）

⇒Q7.「石油ピーク論」をどう捉えているか。また、「脱石油、炭素」という長期トレンドの中で、Shell はガスシフト戦略をとっていくと理解しているが、他メジャーや国営石油企業、中・露の事業者の長期戦略をどう分析しているか。

Document 4

Questions for the 5th Round-Table for Studying Energy Situations
~Management Strategies of Integrated Energy Companies~

1. Each Company's Business Strategy, Based on the Trend of Carbon Reduction (Elimination/Carbon Lowering)

<For All Companies>

⇒ **Q1. What opportunities and reasons motivated you to formulate your current business portfolio? What do you believe are the means for realizing those businesses (personnel acquisition, organizational restructuring, funding procurement, etc.) and the sources of competition for each business? Also, in the context of a growing trend toward carbon reduction and liberalization, what are your thoughts on future funding procurement strategies?**

***We will inquire about each company's future business strategies in questions 2 to 7, which are featured below.**

<For Engie> ~Regional Energy Supply and Development, Efforts toward Hydrogen Business, and Investment in Venture Companies~

⇒ **Q2. What are your thoughts on the future prospects of the gas business, the role of regional energy supply for heating and other purposes, and the future prospects of the hydrogen business? In addition, please share your thoughts on the background that has led to investment in venture companies (distributed power supplies, energy storage, etc.), which you have emphasized in recent years, as well as the relevant evaluations.**

<For EDF> ~Nuclear and Renewable Energy: Striving toward Digitalization and Power Generation with Zero Emissions~

⇒ **Q3. For the utilization of nuclear energy, we feel that acquiring trust from society, improving stability, maintaining and cultivating technologies and personnel for this purpose, and reducing costs are vital. In this regard, what types of efforts do you find to be necessary? In addition, as a power company, what do you feel are the positive and negative aspects of owning a nuclear reactor manufacturer? Also, you have a policy to reduce the proportion of domestic nuclear power plants. Considering the**

current state of and strategies for introducing renewable energy to accelerate the transition to zero emissions, as well as the uncertainty of renewable energy and the environmental aspects of thermal power, what do you think your future adaptaion of and strategies for power demand.

⇒ Q4. With the advancements in Renewable Energy and AI/IoT technology, we can assume that there will be challenges in the area of power such as dealing with digitalization and creation of new services (smart community, integrating mobility etc.). We would like to inquire about your efforts so far and future strategies in this field.

<For Shell> ~Gas Shifting and Diversification (The Beginning of Investment in Renewable Energy and Hydrogen)~

⇒ Q5. How do you envision the future of petroleum and natural gas-related businesses (upstream development, petrochemistry, LNG, etc.)? Further, you have also begun to invest in renewable energy, electric vehicle infrastructure, and hydrogen. We would like to inquire about your future image of these markets (the prospects of their popularization, etc.) and the technical challenges in developing these markets.

2. Global Strategies (for Engie and EDF)

⇒ Q6. How do you evaluate your global strategies to this point, and what kinds of global strategies do you plan to develop in the future? In addition, what are your thoughts on the competition and cooperation with Chinese players on such an occasion?

3. Petroleum and Gas Strategies (Shell)

⇒ Q7. How do you perceive the peak oil theory? Also, we are of the understanding that Shell has adopted a strategy of shifting to gas in the context of a long-term trend toward moving away from petroleum and carbon. What is your analysis of the long-term strategies of other major companies, state-run petroleum companies, and Chinese and Russian companies?