MGM COOLING EFFICIENCY INITIATIVE

Scaling Up Efficient Clean Cooling: What Is Needed And How To Finance It

INTERNATIONAL CONFERENCE ON SUSTAINABLE COOLING

Washington D.C. | USA

MGM INNOVA GROUP

28-30 NOVEMBER 2018

MGM INNOVA GROUP

Integrated technical, financial and environmental solutions that contribute to climate change mitigation and adaptation.

MGM INNOVA ENERGY SERVICES

MGM INNOVA CAPITAL

MGM INNOVA CONSULTING

MGM INNOVA
ENERGY SERVICES

MGM Innova Energy Services is a project development firm focusing on the identification, design, technical and financial structuring, implementation, operation and monitoring of energy efficiency and renewable energy projects, as well as the provision of energy services.

The firm technically structures and supports the implementation of investments managed by MGM Innova Capital.

MGM INNOVA
CAPITAL

MGM Innova Capital is a private equity and green infrastructure investment group focusing on triple bottom line investments in energy efficiency and renewable energy in Latin America and the Caribbean.

MGM Innova Capital is General Partner of the MGM Sustainable Energy Fund L.P. (MSEF) and is currently fundraising for MGM Sustainable Fund II L.P. (MSEF II), which expects to be operational by end of 2018.

MSEF II

MGM SUSTAINABLE ENERGY FUND

MGM INNOVA
CONSULTING

MGM Innova Consulting specializes in climate change related consulting services, including: greenhouse gas inventory development; carbon footprint measurement and neutralization; design, development and commercialization of emission reduction projects; and origination, conceptualization and structuring, of projects that would qualify for benefits under the Joint Crediting Mechanism and the Kigali Amendment to the Montreal Protocol’s Cooling Efficiency Program.

The firm supports origination efforts and structures the climate change portion of investments managed by MGM Innova Capital.

MSEF I

MGM SUSTAINABLE ENERGY FUND

MSEF I is a private equity fund that focuses on equity and mezzanine financing for projects in the energy efficiency and renewable energy sectors in Latin America and the Caribbean, with a total committed capital of US$ 63.2 MM. MSEF I has recently concluded its investment period and its follow-on fund, MSEF II, with a target size of of US$ 200 MM, is expected to start operating by year end.

Both MSEF I and MSEF II aim at triple bottom line investments, with financial, social and environmental results that include:

- Growth opportunities for small and medium sized companies (SMEs).
- Energy savings and greenhouse gas emission reductions.

INVESTMENT SECTORS

ENERGY EFFICIENCY

- Industrial sector: Food and beverage, glass, cement and others.
- Commercial sector: Hotels, shopping centers, educational institutions, restaurants and other buildings.
- Municipal sector: Street lighting.

RENEWABLE ENERGY

- Small hydroelectric power plants.
- Solar utility.
- Landfill gas capture and use to generate energy.

INVESTORS

Experience in Numbers*

28 INVESTMENTS → 54 PROJECTS

71.2 US$ MILLION → 6 COUNTRIES

16% - 17% EXPECTED BLENDED IRR

309,828 MWht THERMAL ENERGY SAVED** EQUIVALENT TO 2.2 MBtu NOT CONSUMED

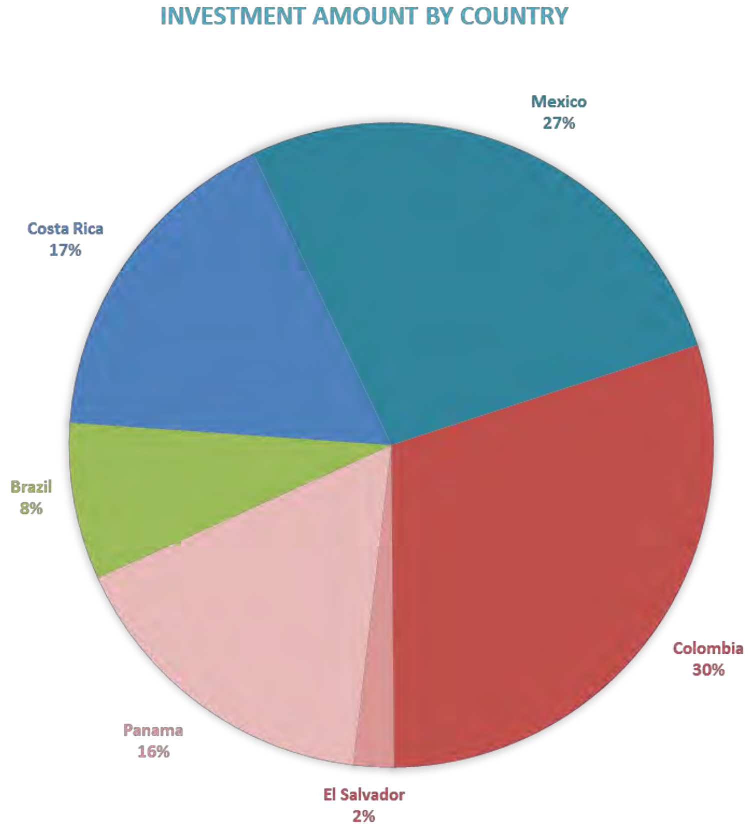
386,014 MWh ELECTRIC ENERGY SAVED** EQUIVALENT TO 26 MW SOLAR PARK ***

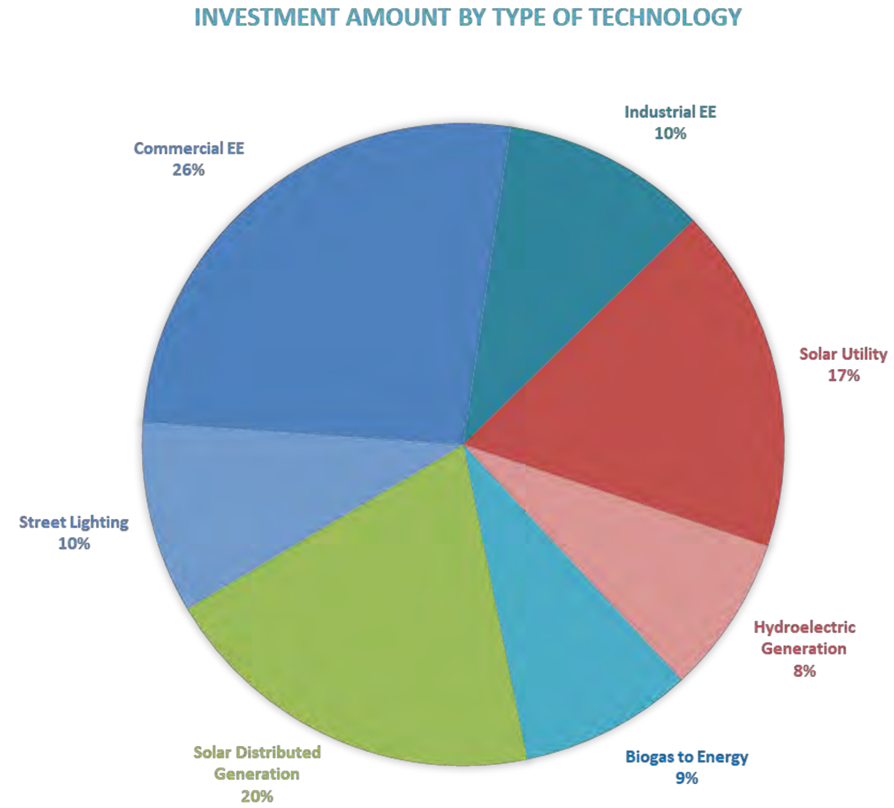
77 MW INSTALLED CAPACITY OF RENEWABLE ENERGY

2.2 MILLION tCO_2e REDUCED**

* from May 2013 through Q3 2018
** estimated over the life of the portfolio projects
*** estimated over 10 years

MSEF - Geographic and Technological Diversification*





*Total investment in Portfolio = USD 71.2M (includes MSEF equity, re-investment of proceeds, and direct debt).

The Kigali Amendment to the Montreal Protocol

The Kigali Amendment to the Montreal Protocol is designed to increase the energy efficiency of cooling in developing countries in order cut down the production and consumption of hydrofluorocarbons. The Kigali Cooling Efficiency Program (K-CEP), a philanthropic program funded by 18 foundations and individuals, has made available a total of up to US$ 10 million to fund programs seeking to support energy efficient, clean cooling finance in eligible developing countries.

Under this initiative, MGM Innova Capital—as General Partner of MSEF II—has been awarded US$ 1.75M to contribute towards the identification, structuring, monitoring and reporting of demonstration energy efficient, low-GWP and non-F efficient cooling projects across several sectors in LAC countries. The program will build upon MSEF I's extensive practical investment experience in Refrigeration & Air Conditioning (RAC) projects, including 21 RAC projects in 5 countries.

PROGRAM GOAL:

- ✓ Break financial barriers leading to the demonstration of efficient non-F technologies in 5-10 installations in LAC countries, with investment of MSEF II and incremental investment support of K-CEP. Other projects are expected not to require incremental investment support.
- ✓ Raise awareness amongst users about the technical, financial and environmental benefits of efficient low GWP and non-F cooling technologies.
- ✓ Unlock the use of debt by commercial and financial institutions in this type of projects.
- ✓ Clearly identify the market opportunities for energy-efficient low GWP and non-F cooling technologies.
- ✓ Disseminate successful case stories through video, whiteboards and targeted social media campaigns
- ✓ Promote triple bottom line benefits, including:
  - ❑ Financial benefits: reduced energy costs.
  - ❑ Social benefits: employment generation.
- ✓ Environmental benefits: reduction in GHG and ODS emissions.

The legacy of the program will be to catalyze large-scale investments in EE RAC with non-F technologies.

BUSINESS MODEL: Supply of Cool Air

BUSINESS MODEL:

- Installation of cooling systems (chillers/air conditioners), and sale of tons of cool air.
- Fixed and/or variable (based on consumption) monthly payments.
- Contract includes identification of needs, selection, installation and maintenance of equipment for a specified period, as well as equipment insurance policies and extended guarantee throughout contract lifetime.
- On conclusion of contract, assets are transferred to client and can be used for several more years.
- Provides an alternative business model to commercial debt or to equity investment in companies as a source of financing for efficient energy equipment.

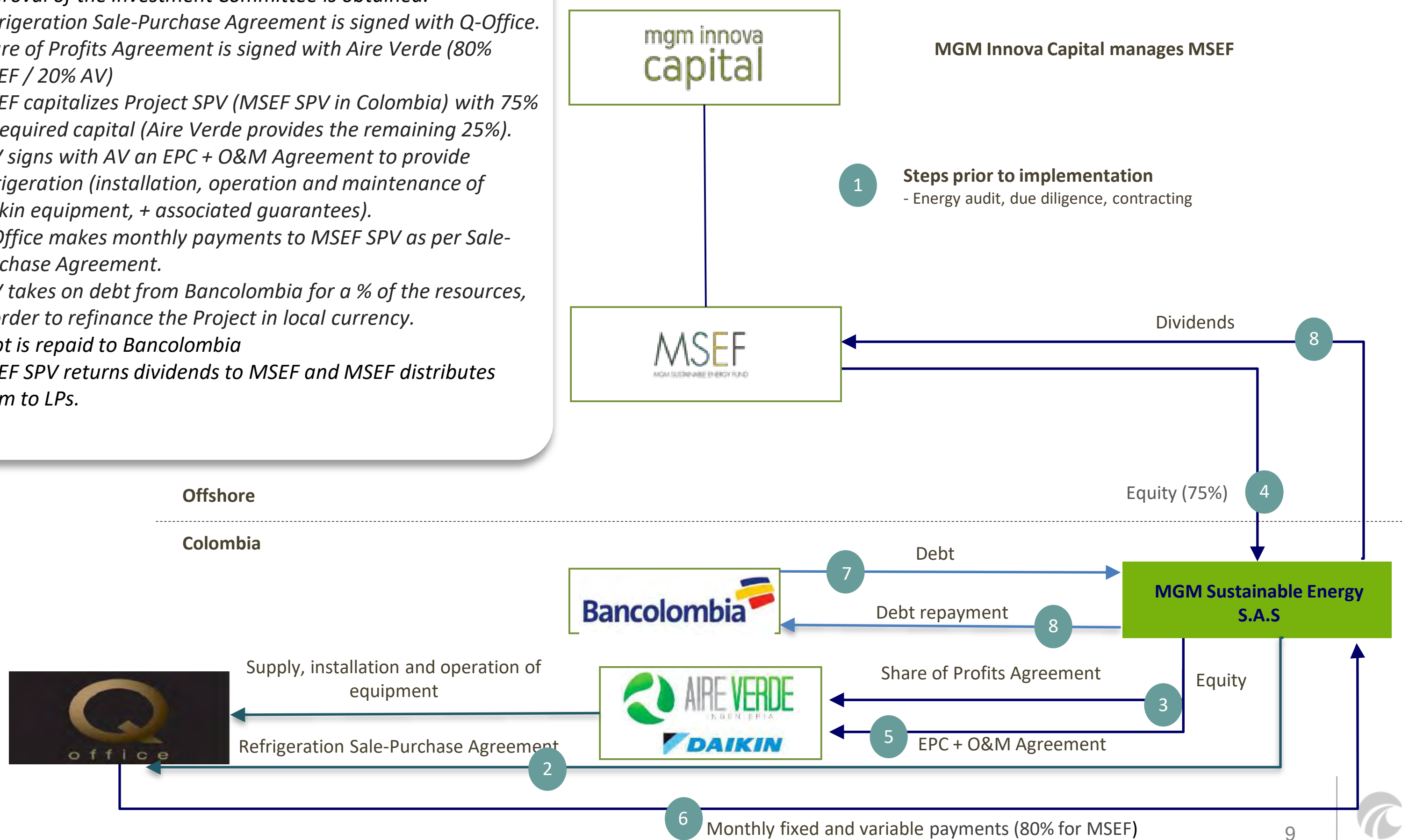
CLIENT BENEFITS:

- ✓ Accesses equipment that is more efficient than what client would have acquired in absence of this alternative.
- ✓ Reduces electricity or fuel consumption costs.
- ✓ With the released capital, client can focus on growing his business lines.
- ✓ Pays for use and does not have to invest in CAPEX.
- ✓ Permanent third-party monitoring ensures optimal performance of equipment.
- ✓ Avoids increases in costs/work in areas unrelated to core business (e.g., hiring consultancies to advise on equipment selection and installation, auditing, compliance and insurance policies, guarantees with suppliers, O & M).
- ✓ The implemented measure is viewed as a manifestation of corporate social and environmental responsibility, which reflects positively on the company's image.

CASE STUDY: Sale of Cool Air to Q-Office Building | Medellin, Colombia

1. *Energy audit and due diligence of project is carried out and approval of the Investment Committee is obtained.*
2. *Refrigeration Sale-Purchase Agreement is signed with Q-Office.*
3. *Share of Profits Agreement is signed with Aire Verde (80% MSEF / 20% AV)*
4. *MSEF capitalizes Project SPV (MSEF SPV in Colombia) with 75% of required capital (Aire Verde provides the remaining 25%).*
5. *SPV signs with AV an EPC + O&M Agreement to provide refrigeration (installation, operation and maintenance of Daikin equipment, + associated guarantees).*
6. *Q-Office makes monthly payments to MSEF SPV as per Sale-Purchase Agreement.*
7. *SPV takes on debt from Bancolombia for a % of the resources, in order to refinance the Project in local currency.*
8. *Debt is repaid to Bancolombia*
9. *MSEF SPV returns dividends to MSEF and MSEF distributes them to LPs.*

CASH FLOW



BUSINESS MODEL: Leasing of Efficient Equipment

BUSINESS MODEL:

- Applies to modernization or replacement of equipment in existing buildings or lease of new equipment in new buildings.
- Lease includes identification of needs, selection, installation and maintenance of equipment for a specified period, as well as equipment insurance policies and extended guarantee throughout contract lifetime.
- On conclusion of lease contract, ownership of equipment is transferred to user.
- Provides an alternative business model to commercial debt or to equity investment in companies as a source of financing for efficient energy equipment.

CLIENT BENEFITS:

- ✓ Accesses equipment that is more efficient than what client would have acquired in absence of this alternative.
- ✓ Reduces electricity or fuel consumption costs.
- ✓ Pays for use and does not have to invest in CAPEX; on lease termination, client owns assets in optimal conditions that can be used for several more years, or updated.
- ✓ Permanent third-party monitoring ensures optimal performance of equipment.
- ✓ Client's maintenance team can focus on solving urgent issues instead of designing solutions.
- ✓ With the released capital, client can focus on growing company's business lines.
- ✓ Avoids increases in costs/work in areas unrelated to core business (e.g., hiring consultancies to advise on equipment selection and installation, auditing, compliance and insurance policies, guarantees with suppliers, O & M.)
- ✓ The implemented measure is viewed as a manifestation of corporate social and environmental responsibility, which reflects positively on the company's image.

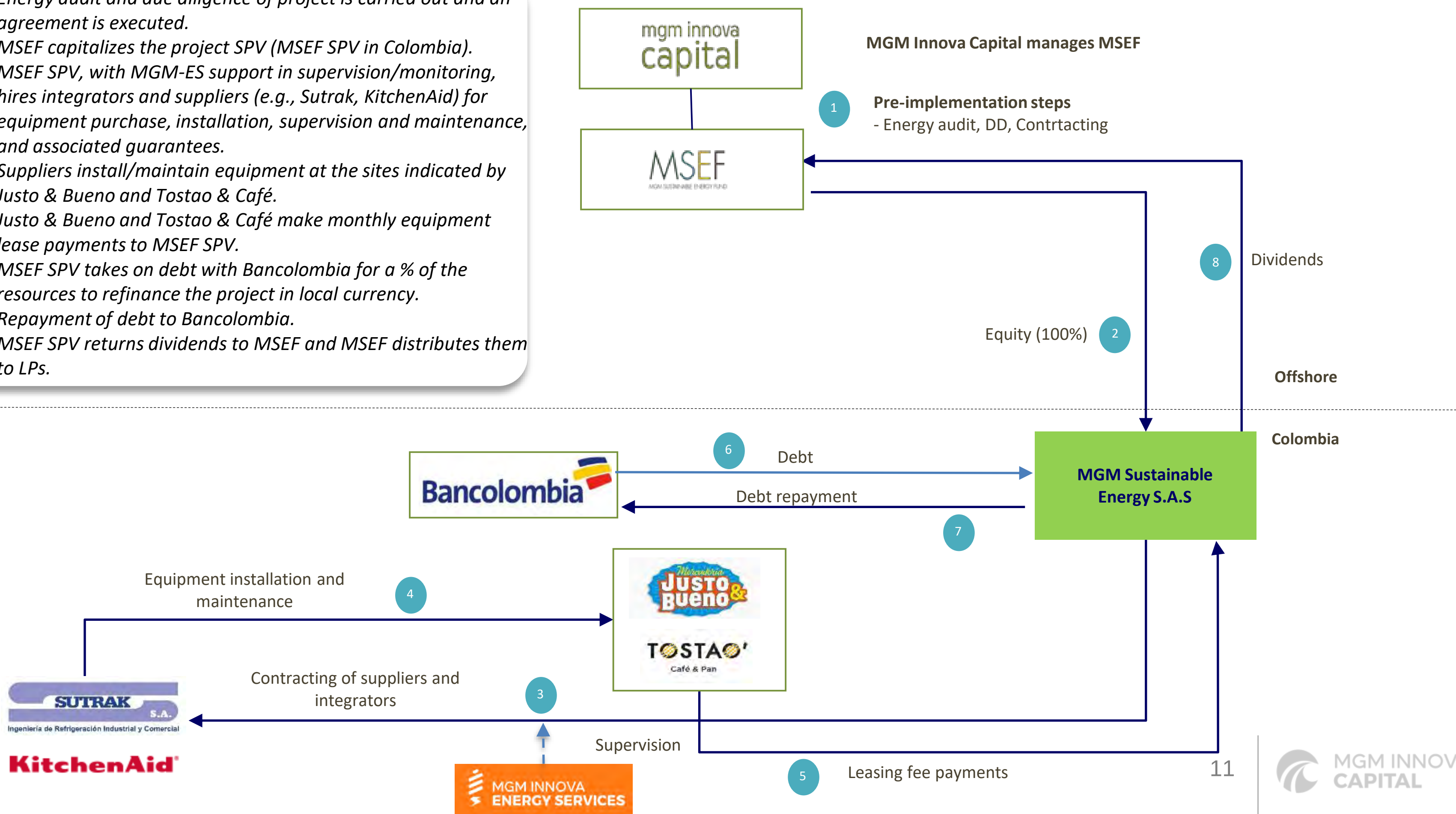
PAYMENT METHODS:

- Fixed monthly payments, adjusted for inflation.
- Percentage of savings.

CASE STUDY: Equipment replacement in Grupo Reve (Justo & Bueno and Tostao y Café), Colombia and Panama

1. *Energy audit and due diligence of project is carried out and an agreement is executed.*
2. *MSEF capitalizes the project SPV (MSEF SPV in Colombia).*
3. *MSEF SPV, with MGM-ES support in supervision/monitoring, hires integrators and suppliers (e.g., Sutrak, KitchenAid) for equipment purchase, installation, supervision and maintenance, and associated guarantees.*
4. *Suppliers install/maintain equipment at the sites indicated by Justo & Bueno and Tostao & Café.*
5. *Justo & Bueno and Tostao & Café make monthly equipment lease payments to MSEF SPV.*
6. *MSEF SPV takes on debt with Bancolombia for a % of the resources to refinance the project in local currency.*
7. *Repayment of debt to Bancolombia.*
8. *MSEF SPV returns dividends to MSEF and MSEF distributes them to LPs.*

CASH FLOW



Potential Clients / Projects

- **Supermarket (Colombia)**: Refrigeration retrofit project in a dozen stores for a fast growing small regional supermarket chain;
- **Restaurant chain (Colombia)**: Retrofit and upgrade of cooling systems for a food processing facility of a large restaurant chain;
- **Supermarket chain (Brazil)**: Refrigeration retrofit program for one of the largest chains in Brazil with over 1,000 stores and several distribution centers;
- **Meat processing (Colombia)**: Refrigeration system associated with facility capacity expansion in a fast-growing processed meat products company;
- **Food industry (Mexico)**: Retrofit in industrial and commercial air conditioning system at facilities of major food industry;
- **Dairy industry (Colombia)**: Expansion of cooling capacity for pasteurization process in a dairy industry;
- **Supermarket chain (Mexico)**: Refrigeration retrofit program for one of the largest supermarket chains in the country with hundreds of stores and several distribution centers;
- **Airports (Latin America):** Installation of Thermo Accumulation systems in Airports to provide cold water to A/C systems (peak shaving).

Conclusion

- Efficient non-F and low-GWP cooling technologies will only be massively deployed once they become more cost-efficient than traditional refrigeration technologies.
- In addition, for massive implementation, new business models, such as third-party financing, will expedite implementation.
- There are large opportunities for efficient non-F and low GWP RAC systems in LATAC.
- Main challenge will be higher costs of non-F given low energy prices.
- Driver might be corporate commitments.
- It is possible to achieve efficiency and low or non GWP in the same projects.
- Proper regulatory framework and strategic communication are critical for massive deployment.

Marco G. Monroy

Founder and CEO | MGM Innova Group

marcogmonroy@mgminnova.com

MGM INNOVA GROUP

www.mgminnovagroup.com

MGM INNOVA CAPITAL

Thank you